



Department
for Environment
Food & Rural Affairs

Marine Strategy Part One: UK Updated Assessment and Good Environmental Status

Summary of responses and government response

April 2026

We are the Department for Environment, Food and Rural Affairs. We are responsible for improving and protecting the environment, growing the green economy, sustaining thriving rural communities and supporting our world-class food, farming and fishing industries.

We work closely with our 33 agencies and arm's length bodies on our ambition to make our air purer, our water cleaner, our land greener and our food more sustainable. Our mission is to restore and enhance the environment for the next generation, and to leave the environment in a better state than we found it.



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Any enquiries regarding this publication should be sent to us at

marine.strategy@defra.gov.uk

www.gov.uk/defra

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Foreword

This summary of responses and government response is in accordance with the reporting requirement in Regulation 18(7) of the Marine Strategy Regulations 2010 (MSR).

It summarises and responds to the feedback received through the consultation: 'Marine Strategy Part One: UK Updated Assessment and Good Environmental Status' (GES), which was held between 20 June 2025 and 15 August 2025.

The consultation marked the beginning of the third implementation cycle of the UK Marine Strategy (UKMS) and included:

- an updated assessment of the state of UK seas and the progress made since 2019 towards achieving and maintaining GES
- our determination of GES for UK waters (referred to here as 'overarching targets' for GES, previously referred to high-level objectives) for the next assessment cycle
- the proposed criteria, environmental targets and indicators we will use for the next assessment cycle

The consultation was jointly launched by Defra and the governments of Scotland, Wales and the Minister of Agriculture, Environment and Rural Affairs for Northern Ireland on 20 June 2025 and remained open until 15 August 2025. It was hosted on the Citizen Space digital platform at: [Marine Strategy Part One: UK updated assessment and Good Environmental Status Consultation](#). Responses were submitted through the Citizen Space portal and via email, comprising both quantitative and qualitative evidence. Stakeholders were informed by the marine and fisheries stakeholder bulletin and through existing engagement channels.

A total of **30 responses** to the consultation were received (21 responses through the online Citizen Space platform, and 9 email responses) from a range of sectors, including Environmental Non-Governmental Organisations (ENGOS), marine industries, the energy industry, the marine research community and members of the public. These responses were considered when finalising the update to the UK Marine Strategy Part One. Annex A contains a list of respondents. Annex B contains a list of all acronyms used in this document.

The UK Government, devolved governments (DGs) of Scotland and Wales, and the Department of Agriculture, Environment and Rural Affairs (DAERA) would like to thank everyone who contributed to this consultation. Your responses have proved extremely insightful in highlighting the priorities of stakeholders regarding the nature and content of the UKMS Part One (UKMS 1), as well as other issues about the wider UKMS framework and associated marine policies in the UK. All comments were considered ahead of finalising the updated UKMS Part One.

The UK Marine Strategy – the next cycle

The UK Government, the devolved governments (DGs) of Scotland and Wales, and DAERA have ambitious goals to restore and recover our seas, whilst driving green growth and fostering a sustainable ocean economy. The UKMS outlines how we plan to achieve GES, which is defined as ‘ecologically diverse and dynamic ocean and seas which are clean, healthy and productive.’

Achieving GES involves protecting the marine environment, preventing its deterioration and restoring it where practical and/or necessary, whilst at the same time providing for sustainable use of marine resources. GES does not require the achievement of a pristine environmental state across the whole of the UK’s seas.

We are committed to improving the UKMS and its supporting framework where we can, within resource, legislative and operational constraints. This means we will work across the four nations to understand how we can move closer to achieving GES. Some of these aspirations are outlined in the ‘Next Steps’ section below, and some can be found in the operational objective sections of the thematic assessments for each Descriptor on the Marine Online Assessment Tool¹ (MOAT). MOAT is a unique resource that we will also look to improve in support of the UKMS and wider marine management, subject to similar constraints to those outlined above.

We will work collaboratively with our arms-length bodies, other government departments, DGs of Scotland and Wales, and DAERA across policy areas - including at the land-sea interface - to improve outcomes for our seas.

Overview of responses

This consultation presented updated assessments of the state of UK seas, and proposed new criteria, targets and indicators for the next assessment cycle. We will use the issues raised to formally update UKMS 1 in due course, as stated below. Many responses touched on multiple Descriptors. Where this was the case, the comments have either been broken down into their component points or have been addressed under the key Descriptor flagged.

The aim of this document is to provide a broad summary of the issues raised by stakeholders in response to the consultation, alongside a summary of the UK government and DGs of Scotland and Wales, and DAERA responses to these issues. All consultation responses were analysed to develop the summaries of the issues raised. We used inductive (open) coding to produce the lists of issues raised by respondents because it is

¹ [MOAT - Marine online assessment tool](#)

an efficient and effective way of capturing and responding to the most common concerns and opinions put forward. It is important to note that the combined government responses to these issues are also not exhaustive but summarise the main policy and evidence commitments and actions we are taking to address the issues raised.

Common issues

Many stakeholders commented about the broader UKMS supporting framework and regulatory context. We will address issues associated with our monitoring programmes (UKMS Part Two) and our programme of measures (POM – UKMS Part Three) when we next update these parts of the UKMS, respectively.

Responses were broadly supportive of the assessments of the state of UK seas, mentioning the importance of the UKMS and the unique role it plays in assessing, reporting on and responding to the state of our seas. They value the UKMS and welcomed improvements in the format and accessibility of the consultation but there were concerns about the perceived lack of ambition for the UKMS, the suitability of current targets and the need to improve our understanding of the cumulative impact from marine industries.

Many raised concerns about evidence and data gaps, the retrospective nature of the assessments and for the assessments to clearly explain the methodologies used to determine the status for each UKMS Descriptor.

Other general themes focused on how to improve the various management and regulatory frameworks that support the achievement of GES, including how to reduce and account for bycatch of UKMS species in fisheries, how to ensure marine planning and licensing take account of GES in decision-making and also how Fisheries Management Plans (FMPs) can contribute to achieving GES.

1. General Issues

Issue raised: Accuracy and ambition

Analysis

Despite some stakeholders saying they welcomed improvements in the structure and format of UKMS 1, many respondents raised concerns about accuracy, sufficiency, transparency and completeness of the assessments. They felt that the narrative was overly optimistic in places which, if not supported by evidence, could be misleadingly positive about the state of our seas. Some ENGOs asked for the UKMS to set more ambitious and clearer actions to improve the state of our seas, and to state by when we expect GES for each Descriptor to be achieved.

Government view

As stated above, the UK Government, DGs of Scotland and Wales, and DAERA have ambitious goals to restore and recover our seas, whilst driving green growth and fostering a sustainable ocean economy. There is a clear duty on all four UK governments to take the UKMS and associated targets for GES into account in key legislative frameworks, such as the Marine and Coastal Access Act 2009 (MCAA) and the Fisheries Act 2020. Marine planning, licensing and fisheries management are devolved matters, however. Ensuring we understand how and where to act together to bring the cumulative impact of different pressures on our seas within sustainable limits therefore makes achieving GES challenging. Some issues are also outside our collective control. We therefore also work through the Oslo Paris Convention for the Protection of the Marine Environment of the North-East Atlantic² (OSPAR) to better understand the impacts these pressures have and work collectively to ensure progress toward GES.

The UKMS is based on cycles of assessments monitoring and measures. To facilitate this the UKMS has a clear governance and decision-making structure which is supported by all four UK administrations as set out by the Marine Environmental Data and Information Network³(MEDIN). Our assessments used a mix of OSPAR common indicators, and indicators developed for the UK only. OSPAR common indicators are developed through OSPAR's scientific working group on Coordination of Biodiversity Monitoring and Assessment (COBAM), which the UK chairs. Through COBAM, we have led the development of indicators on benthic habitats, fish, pelagic habitats and food webs. Indicators for Descriptors D10 (Marine Litter) and D11 (Underwater Noise) are developed and assessed through OSPAR's Environmental Impacts of Human Activities Committee (EIHA). We are currently contributing data to the open data calls for the OSPAR Intermediate Assessments 2029 exercise (OSPAR IA29), which will inform our next UKMS assessments.

Our conclusions on the state of UK seas depend critically on the extent and sufficiency of the available evidence. Marine research and monitoring vary hugely in their spatial and temporal coverage. Assessments are retrospective consequently, the assessments at the time of publication do not always use the most current datasets available. This is due to data availability at the time of assessment, as well as the need to compare across different time periods. For example, one benthic habitats indicator (BH3) assessment used data spanning from 2009 to 2023, as it is an OSPAR indicator and the assessment covered the full Quality Status Report (QSR 2023) period. For most other national (UK-specific) indicators across Descriptors the assessment period was 2018–2023, aligning with the timeframe since the last UKMS.

² [Convention for the Protection of the Marine Environment of the North-East Atlantic](#)

³ [Monitoring | Marine Environmental Data and Information Network](#)

In some cases, there are robust data with full quality assurance and internationally recognised standards, while in other cases, data are less robust or provide only a partial picture and it is necessary to use scientific expert judgement to reach an estimation of the likely status. We recognise that in some instances the assessments have been hampered by a lack of evidence - exacerbated by the global pandemic, Covid-19, which stopped data from being collected or analysed. In response, we are addressing some gaps and shortfalls through the operational objectives for each Descriptor as found on MOAT⁴. We are also exploring how we can use other sources of data, novel approaches and opportunities to augment existing evidence pipelines. We set out our aspirations for this in the Next Steps section below.

Issue raised: Assessment methodology

Analysis

Some stakeholders said that this update to UKMS 1 lacked a clear, structured methodology and consistently documented assessment criteria and associated evidence sources. They asked for a reintroduction of trend summaries for each Descriptor to help improve understanding of overall progress toward GES, and also for a more coherent approach to managing data limitations and uncertainties.

Government view

We acknowledge that methodologies do vary between Descriptors. We signpost stakeholders to MOAT, where the detailed methodologies used for each indicator and thematic assessment can be found. We acknowledge that the methodologies are complex and could be explained more clearly in some instances (for example Benthic Habitats). We will work with the UK Marine Assessment Evidence Groups⁵ and assessment leads to clarify assessment methodologies and processes where needed, and update MOAT accordingly when resources allow.

We were not able to include academic references in our consultation due to UK government consultation guidelines. All references used can be found in the full thematic assessments on MOAT instead. Although trends can be helpful to indicate progress between cycles, they do require detail to show nuance when GES status and its associated indicators have changed. Each descriptor therefore includes a section titled 'Progress since 2019', providing a short narrative of changes since the previous UKMS 1 update. Also, we decided against using trend arrows because these can be subjective and also risk implying state has deteriorated when in reality, it is our understanding or

⁴ [MOAT - Marine online assessment tool](#)

⁵ [Monitoring | Marine Environmental Data and Information Network](#)

methodology/capabilities that have improved. Please note that MOAT also has legacy UKMS documents for stakeholders to view to see a fuller picture.

Issue raised: Consistency of assessments

Analysis

Some stakeholders said there are inconsistencies in assessments at Descriptor level. For example, they said that the 'one out all out' (OOAO) principle has not been applied consistently. They point out that some Descriptors (notably Benthic Habitats (D1, D6), Cetaceans (D1, D4), Birds (D1,D4), Contaminants (D8) and Marine Litter (D10)) aggregate indicator assessments where, if one indicator has failed then the Descriptor as a whole fails. In contrast, other Descriptors have been rated overall as 'uncertain' despite indicators having not met their respective thresholds (Pelagic Habitats, for example), or as 'met' despite most indicators being assessed as only 'partially met' (Eutrophication).

Stakeholders also said there are discrepancies at indicator level and ask for clearer explanations as to why different approaches have been used. For example, they note that thresholds have been changed and say that our assessments are not as rigorous as those done for OSPAR (for example plastic particles in fulmar stomachs). They also ask for explanations of why thresholds have been changed for some indicators (for example 'extent of physical disturbance of benthic habitats from bottom contacting gears').

Government view

The 'OOAO' principle relates to how we aggregate our assessments. Whilst not set out in the Marine Strategy Regulations 2010⁶ (MSR), our view is that it can lead to a more precautionary assessment, which is useful for environmental protection. However, it can also overstate the extent of environmental problems, especially when only one indicator is underperforming. Consequently, the approach we have taken is for more nuanced assessments that use expert opinion to determine the overall status of a given Descriptor.

Methodologies for assessing the current state of the indicator also evolve over time, so it is not realistic to keep a common aggregation approach across all 11 Descriptors (and assessment cycles) so that the respective contributions of each indicator to a GES status is easily communicated, which is why they vary. We will consider reviewing this approach during this next assessment cycle and will work with the Evidence Groups outlined above to support this process.

Some Descriptors do have well-defined aggregation methodologies (for example Marine Birds (D1, D4) and Marine Mammals (D1, D4)). These methodologies are also applied at

⁶ [The Marine Strategy Regulations 2010](#)

OSPAR level. Aggregation methods follow rules that are different for each biodiversity component therefore different approaches cannot be avoided. Pelagic Habitats (D1, D4) are one example where the aggregation is based on a less strict evaluation of indicator results.

Thresholds have changed for some indicators. These have been established by our Evidence Group and subject matter experts. For example, the use of thresholds that reflected underlying sensitivity within broad scale benthic habitats both maximised detail of resolution in assessments, whilst simultaneously aligning with wider marine policy at an international scale.

Broad scale habitats comprise several habitat types that have varying levels of sensitivity to physical abrasion pressures from human activities, based on their ability to withstand and recover from impacts. Therefore, a dual extent threshold was designed to account for varying degrees of disturbance possible within broad scale habitats, based on underlying sensitivity. A higher tolerance extent threshold (25%) was applied to the area of broad scale habitats in Moderate and High disturbance groups collectively, and a stricter threshold value (15%) was applied to the area in High disturbance alone, as this disturbance group only occurred where the underlying sensitivity was in the two highest sensitivity categories used in the BH3 methodology. The BH3 disturbance groups agreed in the QSR 2023 (Zero, Low, Moderate, and High) were selected to represent the pressure and sensitivity elements of disturbance (Matear and others, 2023). OSPAR Threatened and/or Declining (T&D) Habitats need priority protection, therefore, a more restrictive threshold of no more than 5% of habitat area in Moderate and High disturbance was applied.

Also, for pelagic habitats, we do not currently have thresholds or a baseline for pristine conditions. We have opted to use the evidence we do have to indicate negative impacts due to anthropogenic pressures but without further understanding of what would be appropriate or what GES looks like for pelagic it must be assessed as uncertain. This differs from other descriptors where our understanding of ecosystems, baselines and GES is more easily defined.

More information on the associated thresholds for benthic habitats indicator assessments can be found on MOAT.

Issue raised: GES, GES targets and the UKMS framework

Analysis

There was support for changes made to overarching targets that improve our ability to detect and assess trends. Others said that we need to compensate for decline by setting stronger, clearer targets focused on recovery. Several stakeholders called for GES targets to be Smart, Measurable, Achievable, Relevant, Time-bound (SMART) across all Descriptors, with clear language and avoiding phrases like 'minimise impacts' because this is not a clear threshold. Others said that targets then need to be supported by robust

monitoring, fully operational indicators, clear data pipelines and governance for our seas that take GES into account. Some commented that the grading system against targets (met, partially met, not met or uncertain) was too simplistic and would like the system to be overhauled with a lowest score indicating decline.

Government view

We welcome the support for improvements aimed at enhancing our ability to detect and assess trends and recognise the need for recovery-focused targets to reverse declines in marine ecosystem health. Defra has commissioned the Joint Nature Conservation Committee (JNCC) to review existing approaches, data gaps, limitations, and challenges to setting realistic, time-bound GES targets, including how these could be developed as part of our ongoing cooperation via OSPAR. JNCC are looking to define specific thresholds to underpin these targets, enabling a more accurate assessment of recovery or decline, which they will report on in due course. It is important to note that any changes to targets will require a thorough review of current data availability, not only from monitoring programmes but also from other sectors, and involvement with external bodies such as OSPAR. Involving stakeholders will be an essential part of any review of the targets, to ensure that their presentation is clear and usable by both management and policymakers. The UK government, DGs of Scotland and Wales, and DAERA expect to conduct and commission further work in this area throughout the following assessment cycle to inform effective decision-making for the protection of the marine environment and progress towards achieving GES.

Issue raised: Bycatch and bycatch indicators

Analysis

Several respondents asked us about progress toward operable bycatch indicators for seals, cetaceans, birds and fish species, noting that we said we would do this in 2019. They said that bycatch mortality is a significant threat to many species and one we can take action on. Stakeholders pointed to obligations under international agreements (e.g., Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas (ASCOBANS), OSPAR and the EU-UK Trade and Cooperation Agreement (TCA)) which could be used to underpin the development of bycatch monitoring frameworks.

Government view

Defra, the DGs of Scotland and Wales, and DAERA are continuing their work to monitor, better understand, and minimise the bycatch of sensitive marine species. We published

the Marine Wildlife Bycatch Mitigation Initiative (BMI)⁷ in 2022 under the previous administration and included this in the UKMS POM⁸. The BMI outlines how the UK will achieve its ambitions to minimise and, where possible, eliminate the bycatch of sensitive marine species. Since 2022, in England we have expanded our flagship bycatch monitoring and mitigation programme, Clean Catch⁹. We have commissioned the cross-taxa Regional Bycatch Risk Prioritisation Framework project to inform strategic decision-making for bycatch reduction. Defra and the Scottish Government fund the UK Bycatch Monitoring Programme (BMP)¹⁰ which provides essential observer data on incidents of bycatch, focussing primarily on gear types with a high expected or known risk of sensitive species bycatch.

We are considering ways to improve the scope, quality and utility of future bycatch monitoring in UK fisheries. The Cetacean Strandings Investigation Programme (CSIP) and Scottish Marine Animal Strandings Scheme (SMASS) continue to record strandings, including recording any potential deaths caused by bycatch and this data will also feed into the BMP.

We are also developing a seabird bycatch action plan in England, due in 2026, aligning with our commitments under international environmental agreements such as OSPAR, along with assessing the evidence available and needed to underpin this (e.g. preliminary seabird bycatch estimates, seabird bycatch mortality, bycatch hotspots, gap analysis, and the not yet published bycatch mitigation review). OSPAR IA29 will include a new indicator assessment of bycatch (B5¹¹). We will consider how to integrate these findings into UK-specific assessments.

Scotland published the Scottish Seabird Conservation Action Plan¹² in August 2025. The Welsh Seabird Action Plan will be published in early 2026 and the Northern Ireland Strategy, which was consulted on in 2024, is due in 2026.

Issue raised: Climate Change

Analysis

⁷ [Marine wildlife bycatch mitigation initiative - GOV.UK](#)

⁸ [Marine Strategy part three: 2025 UK programme of measures](#)

⁹ [About the Programme - Clean Catch UK](#)

¹⁰ [UK Bycatch Monitoring Programme – Northridge Marine Sustainability Group](#)

¹¹ [documents](#)

¹² <https://www.gov.scot/publications/scottish-seabird-conservation-action-plan-2/>

Stakeholders welcomed the addition of Descriptor-specific sections relating GES status to the impacts of climate change and ocean acidification. There were additional calls for climate change to be treated as a core pressure in UKMS assessments. Despite these improvements, several respondents said the UKMS does not contain enough on climate change to help drive mitigation or adaptation policy with both ENGOs and fisheries stakeholders saying they want a clearer narrative in the UKMS about the role climate change is playing in altering marine ecosystems. This includes how impacts from climate change interacts with other anthropogenic pressures e.g. determining the pressures of climate change in proportion to industry impacts on species. One respondent said that climate change was being emphasised at the expense of other pressures, and that those pressures that have more serious immediate impacts are not afforded the same focus in the UKMS. Several respondents across different sectors reflect that current monitoring is not sufficient to detect and attribute the role of climate change in changing marine ecosystems. Some stakeholders also said that we need to be able to quantify the blue carbon potential from the recovery of benthic habitats and other marine ecosystems, and to reflect this in policy development, because it is important to embed climate change mitigation and adaptation priorities like blue carbon into the GES framework.

Government view

We recognise the significance of climate change, alongside pollution and biodiversity loss, as inter-related crises. This latest updated to UKMS Part One is the first time we have included climate change specific information per descriptor. We recognise that climate change is a core pressure impacting our ability to achieve GES. Defra, the DGs of Scotland and Wales, and DAERA continue to carry out research and assessments which inform our policy making but may be out of scope for inclusion in our UK Marine Strategy. Many of these studies can be found on The Marine MCCIP website. We will consider adaptation and mitigation measures in the update to UKMS Part Three.

The UK Government has established a National Adaptation Programme (NAP)¹³, which sets out the actions that the Government and others will take to adapt to the impacts of climate change in the UK. NAP3 (the most recent update to the NAP) sets out the key actions for 2023 to 2028 and forms part of the 5-yearly cycle of requirements laid down in the Climate Change Act 2008. The UK government is developing its strategy for future climate adaptation, including in response to ongoing engagement with the Climate Change Committee. As climate adaptation is a devolved matter, Northern Ireland, Scotland and Wales have also produced their own adaptation plans.

We know that oceans are critical in regulating the Earth's climate. Their ability to absorb heat and carbon dioxide (CO₂) means that marine ecosystems, and the human activities within them, are particularly vulnerable to climate change. OSPAR established a Working

¹³ [Understanding climate adaptation and the third National Adaptation Programme \(NAP3\) - GOV.UK](#)

Group on Changing Ocean Climate and Ocean Acidification (WG COCOA) in 2023 to facilitate the implementation of Strategic Objectives in the North-East Atlantic Environment Strategy (NEAES 2030) concerning ocean acidification and climate change. This will ensure the integration of climate change and ocean acidification throughout the OSPAR structure. We will work collaboratively with OSPAR contracting parties, through WG COCOA, to ensure data pipelines can adequately inform evidence-based decision making. This work sits alongside that of MCCIP.

We recognise the need to better understand the impact of climate change on marine ecosystems and how this interacts with human pressures. Both the Scottish Government and Defra have funded research projects exploring the impact of human activity and climate pressures on the carbon stored in UK subtidal seabed sediments, the results of which are due to be published later this year.

We agree that blue carbon habitats are important nature-based solutions to climate change, as well as being richly biodiverse ecosystems that can provide a crucial buffer from coastal flooding, benefit fish stocks and improve local water quality. Collectively, we are progressing understanding of the value of these habitats. The UK established the cross-administration UK Blue Carbon Evidence Partnership (UKBCEP)¹⁴ to progress the evidence base on blue carbon habitats in UK waters. The accompanying Evidence Needs Statement identified the critical evidence gaps that need to be addressed to better understand and restore our vital blue carbon habitats. A key part of this work is understanding the emission reductions that can be achieved from restoring blue carbon habitats or creating new blue carbon habitats, such as saltmarsh and seagrass. Whilst saltmarshes are not in scope for the UKMS, the UK and Scottish Governments are funding new research to fill evidence gaps that prevent these habitats being included in the UK Greenhouse Gas Inventory¹⁵, meaning emissions reductions from habitat restoration could be counted towards UK Carbon Budgets in the future. The Scottish Government published the Scottish Blue Carbon Action Plan¹⁶, which sets out our priorities for blue carbon habitats and contains actions to address remaining evidence gaps as well as to integrate consideration of blue carbon habitats into policy developments. Scottish Government are investing in research to fill essential evidence gaps to ensure that blue carbon habitats are effectively utilised as part of our strategic approach to tackling climate change.

In Northern Ireland, DAERA published the Northern Ireland Blue Carbon Action Plan 2025-2030 which will provide the foundation for the protection and restoration of our blue carbon

¹⁴ [UKBCEP - UK Blue Carbon Evidence Partnership](#)

¹⁵ [The UK National Atmospheric Emissions Inventory \(NAEI\) | National Atmospheric Emissions Inventory](#)

¹⁶ [2. Blue carbon - overview - Scottish blue carbon action plan - gov.scot](#)

habitats. It will work to provide nature-based solution to mitigate climate change through the absorption of carbon dioxide in the Northern Ireland inshore area. Relevant actions include prioritising the blue carbon habitats of focus for management, restoration and creation; continuing to expand the evidence base of location, extent and condition of relevant habitats; and undertaking research projects to advance the inclusion of Northern Ireland's blue carbon contribution to the UK Greenhouse Gas Emissions Inventory and the UK Climate Change Risk Assessments. Northern Ireland's Marine Protected Area Strategy 2025-2030 acknowledges the twin global crises of biodiversity loss and climate change and includes actions to invest and participate in research to better understand the contribution of MPAs to climate adaptation and mitigation, and the risks to the network as a result of climate change. This includes work which the Department will complete, to review the MPA feature list to add new features such as blue carbon habitats that would benefit from spatial protection measures.

Finally, there is a significant body of other research and development work associated with understanding and enabling adaptation to climate change in marine ecosystems, and for marine industries. For example, ACTNOW¹⁷ is a state-of-the-art work programme that provides regulators and decision-makers with the knowledge and fit-for-purpose tools they need to combat biodiversity loss in coastal and marine habitats threatened by climate change. The UK government produces climate adaptation reports¹⁸ and the fourth round of reporting will include some marine adaptation aspects. The MCCIP reports on 'societal' impacts¹⁹ and the ECOWind project²⁰ focuses on climate change and cumulative impacts from offshore wind farms.

2. Policy gaps

Issue raised: Linking targets to measures

Analysis

Several comments were made about the need to attribute progress toward GES to specific measures outlined in the UKMS POM.

¹⁷ [ACTNOW | EU Marine Research Project](#)

¹⁸ [Climate adaption reporting fourth round: marine - GOV.UK](#)

¹⁹ [Societal Impact | Marine Climate Change Impacts Partnership](#)

²⁰ [Cumulative & Climate Change Effects Archives - ECOWind](#)

Government view

The UKMS POM²¹ was published in January 2025. We are working to better understand and evaluate the efficacy and sufficiency of the POM and its measures and have commissioned a programme of evidence to inform this work. The first step in this evidence work will consider the development of an evaluation framework that would be used, in the long term, to help us better understand the impact of any measure in moving us toward GES. This will help us prioritise further improvements to the POM in due course.

Issue raised: Marine Protected Areas (MPAs)

Analysis

The increase in the number and type of MPAs was viewed by several respondents as positive progress. Some also asked that there is a standardised approach to naming protected marine sites across the four nations. Some ENGOs said that the assessments overstate the contribution of MPAs to achieving GES because many sites lack effective management plans, enforcement or monitoring. They also said that gaps in the MPA network remain – specifically for seabird foraging areas in Scotland and Northern Ireland. Some stakeholders also said that many MPAs lack, or have out of date, feature assessments. They said it is important to protect forage fish (such as sandeel and sprat) to underpin ecosystem resilience, and to integrate spatial protections into marine spatial planning.

Some stakeholders said that, whilst the number of MPAs has grown, this has not limited industrial expansion, particularly for offshore wind farms. They also felt that management measures for fisheries were overdue in the three newly designated Highly Protected Marine Areas (HPMAs) in England.

Government view

The UK Government, DGs of Scotland and Wales, and DAERA remain committed to delivering our national and international MPA commitments including on effectively protecting and conserving at least 30% of our seas by 2030. Under the Conservation of Offshore Marine Habitats and Species Regulations 2017, the Conservation of Habitats and Species Regulations 2017, and the MCAA, regulators are legally obligated to assess whether developments or projects, such as an offshore wind development, could have a significant impact on MPAs. In England we have a statutory target under the Environment Act 2021 for at least 70% of MPA features to be in favourable condition by 2042 with the remainder in recovering condition. The recent Environmental Improvement Plan (EIP)

²¹ [Marine Strategy part three: 2025 UK programme of measures](#)

committed us to an interim target of at least 49% of MPA protected features to be in favourable condition and at least 46% in recovering condition, by December 2030. THE EIP also sets timelines for implementing management measures for fisheries and other damaging activities.

Additionally, for fishing activity, the Marine Management Organisation (MMO) consulted in June 2025 on restrictions to the use of damaging fishing gear in a further 42 Marine Protected Areas in England. The MMO is now carefully considering all responses received before deciding what management measures will be required to protect the designated MPA features in those sites. This follows the implementation of similar measures by the MMO in 2022 and 2024 and measures being implemented in inshore MPAs by the Inshore Fisheries and Conservation Authorities (IFCA).

In England, as is the case for all designated MPAs, developments or projects that could impact HPAs are managed through the marine licensing and planning systems. As part of this process, applications for activities in HPAs are subject to a Marine Conservation Zone (MCZ) Assessment to ensure potential impacts HPAs are properly assessed. The MMO have also consulted on a proposed byelaw to prohibit commercial and recreational fishing across all three HPAs and a byelaw to prohibit anchoring within Allonby Bay inshore HPA. Government will take a decision on these byelaws in due course. Defra is working with the responsible public authorities to progress further management for wider activities, as necessary.

Whilst climate change is not directly considered in the design and management of the MPA network, the current English MPA network review is exploring ways in which the English MPA network could help better address a number of concerns, including climate change and meeting GES. The network review is considering how best to maintain or enhance the coherence of the network. This includes developing our understanding of how MPAs can help better support highly mobile species. Defra is delivering its Offshore Wind Environmental Improvement Package which contains a set of measures to reduce delays and de-risk offshore wind consenting whilst protecting the marine environment.

Fisheries management measures for Marine Protected Areas within Scotland's offshore waters between came into effect on 16 October 2025.

The Scottish Government classified 12 additional marine Special Protection Areas (SPA) in December 2020 providing additional coverage for seabirds. Proposed fisheries management measures for these sites and all other SPAs with marine extensions are being developed and will be consulted on, alongside other inshore MPA and Priority Marine Features management measures, as soon as possible after the Scottish Parliamentary election in May 2026. The Sandeel (Prohibition of Fishing) (Scotland) Order 2024, which was laid in Scottish Parliament on 5 February 2024 and came into force on 26 March 2024, remains in place. Prohibiting fishing for sandeel in Scottish waters has the potential to provide long term sustainability and resilience to the marine ecosystem as well as bringing about potential benefits to sandeel, seabirds, marine mammals and other fish species.

Under the Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (as amended) and the Marine Act (Northern Ireland) 2013, regulators are legally obliged to assess whether a plan or project will have a significant impact on an MPA. The Marine Protected Areas (Prohibited Methods of Fishing) Regulations (Northern Ireland) 2022²² were introduced on 1 January 2023 to protect benthic marine features within nine inshore sites in the Northern Ireland MPA Network. The regulations prohibit the use of demersal mobile gear (and in some sites the use of static fishing gear) within those sites. Following the review of consultation responses, Northern Ireland's MPA Strategy 2025-2030 seeks not only to comply with the MPA OSPAR network design principles, but to enhance these by also taking account of the importance of adaptability and flexibility as evidence changes, and in response to climate and other anthropogenic pressures.

In Wales, the first comprehensive condition assessments undertaken on the MPA network covering inshore sites was published by Natural Resources Wales (NRW) in 2025. This assessment provides an important baseline in which to identify actions and measures required to improve the condition and management of our sites. Beyond this, Welsh Government remain committed to their MPA Network Completion Programme which includes the designation of MCZs. At present 6 areas of search are being refined with 4 in the offshore and 2 in the inshore. Each site will include benthic features only. Upon designation, it is anticipated this important contribution will not only improve the coherence and connectivity of the network but will contribute to the achievement of GES through wider biodiversity enhancements.

Issue raised: The ecosystems-based approach and policy integration

Analysis

Some responses asked for more progress on an ecosystem-based approach to marine management, which would be supported by an analysis of the interactions between Descriptors and how pressures cascade through the food web. Some ENGOs said that the scale and pace of ecological decline require a more integrated and ambitious approach to align climate, biodiversity, and socio-economic policies and goals and that fragmentation of policies, particularly with fishing, undermines a coherent, ecosystem-based approach. They said we also need to integrate marine and terrestrial policies that influence the sea such as the Water Environment (Water Framework Directive) Regulations 2017 (WER), where possible.

²² [The Marine Protected Areas \(Prohibited Methods of Fishing\) Regulations \(Northern Ireland\) 2022](#)

Government view

The UK Marine Strategy was one of the first pieces of legislation to embed an ecosystems-based approach to managing our seas. We are continually working to improve our understanding of how to use this approach to best effect. For example, the Scottish and English governments recently took the decision to close waters to commercial fishing for sandeel, based on an ecosystem-services approach to management decisions.

The UK Government's three-year marine Natural Capital and Ecosystem Assessment (mNCEA)²³ programme delivered evidence, tools and guidance to integrate natural capital and ecosystem-based approaches into policy and decision making for marine and coastal environments. Through a mix of data collection, innovation and application projects, mNCEA explored the state of England's marine and coastal natural assets, the environmental, economic and societal benefits they provide, and the value they hold for people. This has filled targeted marine evidence gaps and helped to join-up assessment and management across the land-sea interface, from 'source to sea,' and inshore to offshore.

In Northern Ireland, policy development has been directed by the Northern Ireland Environmental Improvement Plan (EIP), resulting in the development of a coordinated suite of strategies and action plans to deliver for marine nature recovery while contributing to the delivery of GES under UKMS.

In addition, Defra and the Welsh Government are reviewing the WER²⁴ following the final report of the Independent Water Commission²⁵. Our proposals for the shape of a future water framework in England and Wales will be set out in due course.

Issue raised: Governance and devolution

Analysis

ENGOS said we need to improve the governance of our marine space, allowing devolved governments of Scotland and Wales, and DAERA, to develop regionally tailored indicators and delivery pathways within a coherent UK-wide framework.

Government view

²³ [Introducing the Marine Natural Capital and Ecosystem Assessment Programme \(mNCEA\) – Marine Science](#)

²⁴ [The Water Environment \(Water Framework Directive\) \(England and Wales\) Regulations 2017](#)

²⁵ [Independent Water Commission - GOV.UK](#)

The UKMS is a UK-wide policy framework that enables the UK, DGs of Scotland and Wales, and DAERA to work together on shared issues, to shared targets. The DGs and DAERA set their own policies on how to manage their waters, and to establish their own priorities for action. Policy leads from the DGs of Scotland and Wales and DAERA then meet every quarter to discuss UKMS issues through the Policy Leads Group. The governance and terms of reference for this group are currently under review, with the intention to improve governance of our seas. This demonstrates a clear commitment to continue to work together to improve the UKMS and its associated governance structures.

Issue raised: Accountability and regulation

Analysis

ENGOs asked for GES targets to be taken into account in licensing and consenting decisions and be included in Environmental Impact Assessments (EIA). They suggest that guidance or regulatory amendments would be needed to mandate that EIA explicitly evaluate the potential impacts of a proposed activity on progress toward GES. They also ask for GES targets, indicators and status to be taken into account when entering into negotiations with the EU on fish quotas. They also request that FMPs consider how to contribute to achieving GES, and to balance the protection of marine habitats with the expansion of marine industries and ‘spatial squeeze’ in the marine environment. Some respondents asked for clear pathways to escalate evidence from the assessments to drive policy responses and action.

Government view

GES is already embedded within the UK Marine Policy Statement (MPS²⁶) and national marine planning frameworks, as well as fisheries objectives in the Fisheries Act 2020²⁷. It is therefore taken into account in the development of marine plans and FMPs. The UK government is considering, however, whether additional guidance would ensure GES is embedded within marine plans and FMPs on a consistent and coherent basis.

We would need to formally amend the relevant EIA regulations to embed GES targets in EIAs, and there is no opportunity or appetite for doing this at this time. The Levelling Up and Regeneration Act 2023 provided powers to implement a new system of environmental assessment, Environmental Outcome Reports (EOR), to replace existing EIA processes. The UK government is therefore also considering how to replace the EIA framework with EOR in England in due course.

²⁶ [UK marine policy statement - GOV.UK](#)

²⁷ [Fisheries Act 2020](#)

The UK Fisheries Act 2020 establishes the regulatory framework for managing and protecting fisheries resources. It sets out eight fisheries objectives, including those related to sustainability, bycatch, and climate change, that are aimed at ensuring sustainable and responsible management of fisheries resources in UK waters. FMPs provide detailed evidence-based action plans for managing specific fish stocks and fisheries, that will contribute to delivering GES for commercially exploited fish and shellfish stocks.

Issue raised: Marine planning and prioritisation

Analysis

Respondents welcomed the progress made on marine spatial prioritisation (MSPri) in English waters, valuing this proactive approach to decision making. ENGOs asked for the MPS to be updated, and for the development of a Fishing Strategy to ensure this sector is adequately accounted for in marine spatial prioritisation processes. Several respondents felt marine planning and spatial prioritisation had failed as pressures caused by industry activities remain significant, including in protected areas. They also called for a clear policy response to ensure environmental issues are adequately, rationally and substantively considered to optimise the use of marine space in response to ‘spatial squeeze.’

Government view

Defra is aware of concerns regarding the age of the MPS, which was published in 2011 under a previous Government. Ministers have been clear that updating the MPS is not a priority for this government and that the focus of resources should be on improving delivery. The combined weight of more recent marine plans and other more recently published policies are also highly relevant; the MPS should not and was never intended to be viewed in isolation.

Defra's MSPri Programme has provided a strategic steer to The Crown Estate (TCE) on key marine policy interests related to the 20-30GW of future offshore wind that TCE intends to bring to market in the English sea by 2030. The aim of this work is to help speed up and derisk the future leasing of the 20-30GW through helping TCE to identify suitable locations for this 20-30GW of future offshore wind lease areas which avoid the most environmentally sensitive areas (including for marine birds) or areas which are important to other marine sectors and Government priorities. Offshore wind projects which are currently in the pipeline prior to this have not been influenced by the MSPri programme.

The steer will also help to reduce tensions between future offshore wind projects and other users of the sea, including fisheries. The next phase of MSPri will be to continue to take forward the co-location workstream and include work with TCE after they have conducted their stakeholder engagement over the summer and autumn of 2025.

The UK Government has heard the calls for a Fisheries Strategy. Through the Joint Fisheries Statement, we have set out the ambition of the UK to continue delivering world class, sustainable management of fisheries, while through programmes such as Fisheries

Management Plans and the Fishing and Coastal Growth Fund, we have committed to working with stakeholders to develop solutions and proposals together.

In Scotland, the development of updated Scottish National Marine Plan (NMP2) recognises that healthy, biodiverse and productive seas are key to securing long-term benefits and opportunities for everyone in Scotland. NMP2 will support decision makers to deliver on Scottish and UK Government commitments through marine planning.

The NMP2 embeds consideration of the requirements of the UKMS with the current draft high-level objectives setting the national ambition for marine planning in Scotland. These have been distilled from wider commitments, including the GES descriptors and MPS High Level Marine Objectives (HLMOs); which includes specific considerations for UKMS in marine plans.

By adopting a blue economy approach to the update to NMP2 the Scottish government is considering the marine economy, local communities, and the environment together. In parallel with planning policy development, the NMP2 process is also developing monitoring and evaluation framework and proposals for implementation of the plan. The updated Sectoral Marine Plan for Offshore Wind Energy (SMP-OWE) is also under development, supporting deployment of offshore wind in Scottish waters whilst protecting marine users and our environment.

Issue raised: Social and economic analysis

Analysis

Several responses asked for the social and economic analysis of the UKMS and associated marine sectors to be updated as soon as is practicably possible to be in line with the MPS, which requires 'productive' oceans and seas. Some said that there are new sources of evidence that could support this, and that there is also a need to develop targets and metrics to assess ocean literacy and access to blue spaces. One stakeholder also highlighted the need to include information about the spatial footprint of marine industries such as marine energy, coastal development, shipping traffic and tourism to show where pressure is growing, or reducing, enabling policymakers to balance competing demands from industry with the need to protect the environment.

Government view

Social and economic assessments are a vital part of taking a holistic, systems-focused view at the marine environment. Incorporating this data compliments and champions a natural capital approach to delivering UKMS. We rely on the Office for National Statistics

(ONS) data about different marine industries to update this assessment. Once this data is accessible there is intent to review and publish an update on MOAT²⁸.

Separate to this, Defra runs an annual national 'Survey of Attitudes to the Environment' (2021-2025²⁹) where a representative sample of the public is asked for their perceptions of the health of the marine environment. Results from the 2024 survey show a continuing downward trend since 2021 with the health of the marine environment more likely to be rated 'very poor' or 'poor' (34%) than 'very good' or 'good' (17%). Although Defra and the UK Government do not have an active Ocean Literacy programme, Defra is currently supporting external organisations in the development of England's Ocean Literacy Strategy³⁰.

Issue raised: Historic Environment

Analysis

A number of respondents asked for the UKMS to include an assessment of the state of the historic environment of our seas and its role in achieving or undermining efforts to achieve GES. This would better reflect existing legal and policy definitions of the whole of the marine environment³¹. They propose that this approach would support the inclusion of the historic environment in marine plans. They also ask for an assessment of the social and economic value of the historic environment of our seas and of the distinctive roles of historic structures in providing habitats, including historic coastal structures, built structures out at sea, and wrecks.

Government view

We acknowledge the important role that the historic environment, including features of archaeological and historic interest, plays in the marine environment and the contribution it makes to our coasts and seas. The UK government, DGs of Scotland and Wales, and DAERA recognised the cultural, social and environmental value of the historic environment through the Marine and Coastal Access Act 2009, the MPS and the EIP (2023) in England. Each DG has their own approach to the historic marine environment. For example, Historic Marine Protected Areas 'Historic MPAs' are designated under the Marine Scotland Act

²⁸ [Social and economic analysis - Marine online assessment tool](#)

²⁹ [Survey on Attitudes to the Environment - NT0821](#)

³⁰ [Understanding Ocean Literacy and ocean climate-related behaviour change in the UK' - ME5239](#)

³¹ The UK Marine Policy Statement (MPS) defines the marine environment and issues to be considered as: "all aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged".

2010 to protect marine historic assets (e.g. historic shipwrecks) of national importance within Scottish territorial waters.

In England, we work with other Government departments and agencies (including Historic England), as well as stakeholders, to deliver marine policy and explore the contribution that the historic environment can make to marine plans (such as the update to the East Marine Plan), marine planning and licencing. Recent work supported by Defra includes the mNCEA programme, which has provided evidence on the social, economic, cultural and co-benefits of the historic environment. The MSPri process also considers the marine historic environment.

Defra will consider using the outputs from projects such as ValMAS (Valuing Marine Structures³²) and the Marine Data Exchange Heritage Accelerator project³³ to update the information we provide about the social, cultural and environmental value of the historic marine environment on MOAT in due course, alongside the wider refresh of the National Marine Heritage Record being conducted by Historic England.

3. Evidence gaps

Issue raised: Data (gaps and suitability)

Analysis

Many respondents see the value of using OSPAR data for the UKMS assessments because it is collected and analysed in quality assured, standardised ways. Several respondents also praised the volume and breadth of data used in the assessment, saying it was very comprehensive. Stakeholders were concerned about the prevalence of evidence gaps and what this means for the accuracy and value of our assessments. They asked that commitments are made as to how evidence gaps will be addressed by putting in place sufficient monitoring before the next review period to avoid a repeat of this issue.

Many respondents highlighted that data used was out of date by the time the updated UKMS assessment was published, undermining confidence in the accuracy of the assessments. This is especially the case for the assessments completed for Seals (D1, D4), Cetaceans (D1, D4) and Marine Birds (D1, D4), and Commercial Fish and Shellfish (D3). They said that several Descriptors have significant data gaps present across their

³² [Landmark new research funded to shape the future of “Marine Artificial Structures”: from oil and gas platforms to offshore wind structures - Plymouth Marine Laboratory](#)

³³ [MDE Heritage Accelerator | Marine Data Exchange](#)

indicators resulting in condition assessments for six of the GES descriptors being listed as “GES uncertain, partial or mixed.”

Government view

We address the issue of the accuracy of our assessments above in Section 1. Specific data gaps issues are also addressed for each Descriptor. Broadly, we will update UKMS Part Two in due course. Through this we will look to close evidence gaps over the next assessment cycle. We are also looking at how we can use ‘other sources of data’ to ensure we use the best available evidence to support our assessments - as trailed in ‘Section 5: Next Steps’ below - and will consult on these changes at that time.

4. Issues raised by Descriptor

4.1 Cetaceans (Descriptors D1 & D4)

Issue raised: Expansion of monitoring programmes

Analysis

The importance of restarting and expanding monitoring programmes that meet International Council for the Exploration of the Sea (ICES) monitoring specifications e.g. the BMP, was seen as crucial by one ENGO respondent. This stakeholder expressed concern that this programme’s last published report, covering 2020, is now out of date. The BMI was also noted not to have reported any progress since its publication in 2022, and that a final version of the UK Cetacean Conservation Strategy was not published following consultation. There was a call for such programmes to develop revised objectives and time bound targets to effectively minimise or eliminate bycatch. Another ENGO stakeholder asked for the addition of a UK Cetacean Conservation Strategy to the suite of Conservation Strategies already in place (e.g. the Scottish Seabird Conservation Action Plan). Other respondents said they would welcome a better analysis of cetacean populations in UK waters and feel the indicators used are inadequate to do this. They said that there are marine plan scale data available to do this.

Government view

We address the issue of the BMI in the ‘Bycatch and bycatch indicators’ response in Section 1.

The UK Cetacean Conservation Strategy was published in December 2025. It includes a recommendation to build the evidence base, including through co-ordinated monitoring to improve understanding of the conservation status of cetaceans. We are currently establishing an overarching coordinating function across the administrations to oversee work related to vulnerable marine species and will begin work to engage stakeholders to

identify where action can be taken to support implementation of the UK Cetacean Conservation Strategy's objectives in due course.

The Defra and Scottish government-funded UK BMP has run since 2005, collecting data on bycatch including marine mammals. The BMP remains operational, collecting observer data annually. The 2021 report was delayed due to unforeseen circumstances and an update was published at the end of 2025. This provides robust information to feed into reporting requirements, and data needs to enable annual estimates of bycatch across key fisheries. Furthermore, we are considering ways to improve the scope, quality and utility of future bycatch monitoring in UK fisheries.

Defra funds numerous bycatch monitoring and mitigation projects, such as those coordinated through our flagship bycatch monitoring and mitigation research programme Clean Catch. There is also work ongoing across Scotland in relation to bycatch monitoring mitigation, including the Scottish Entanglement Alliance (SEA) project which seeks to find solutions to reduce entanglement of whales. UK waters are monitored for cetaceans as part of a collaborative, systematic large-scale ship and aerial survey of European Atlantic waters (SCANS). The data is collected using a high quality, standardised agreed method across all participating countries every 10 years and more recently has moved to a 6-year cycle. SCANS data forms the core evidence that has been assessed against in the UKMS.

Indicators for cetaceans use the best available evidence to assess at scales appropriate for both resident species populations and the wide-ranging species populations that utilise UK waters. Additional data types are utilised where possible and methods for further inclusion are being explored. We will be updating UKMS Part Two in due course and will address evidence gaps at that point. We anticipate establishing protocols for including other sources of data to augment and support formal UKMS data pipelines and processes.

Issue raised: Targets and indicator development

Analysis

An ENGO respondent stated that the 2025 GES targets are an improvement over those from 2019. They felt that it is positive to see the targets altered to include a reference to decreasing bycatch for both seals and cetaceans. Others highlighted that whilst proposed new or revised targets are positive, they must be matched by investment in associated monitoring programmes.

The scope for development of noise exposure indicators for both impulsive and continuous noise in UK marine protected areas were seen as positive developments by two ENGO respondents. A call from the same sector was made for additional indicators for marine mammals to highlight trends, which are likely linked to climate change (including of impacts of prey species).

Government view

As mentioned previously, we will address issues associated with monitoring programmes and associated capacity when we update the UKMS Part Two. There is potential to consider the outputs from the UK indicator on impulsive and continuous noise, and how this might contribute to assessment of GES of marine mammals. Similarly, as the OSPAR Pilot Assessment of Status and Trends of Persistent Chemicals in Marine Mammals develops there is potential to consider further development from a UK perspective with appropriate experts. There is also scope to consider the development of an indicator specifically designed to highlight trends likely linked to climate change to support identification of resilience of species to climate change impacts.

Issue raised: Remote electronic monitoring (REM)

Analysis

Concerns were raised that marine mammal bycatch may be being under-reported by fishers and that current data cannot be relied upon to provide bycatch rates for marine mammals. An ENGO respondent suggested that REM should be rolled out to high-risk fisheries for bycatch, including static net fleets and boats under-10m, to better understand bycatch impacts.

Government view

The UK Government are taking a targeted and phased approach to implementing REM in English waters. Defra is initially focusing on specific priority fisheries, which include fixed and drift nets (gill and trammel) on vessels over 10 meters in English waters of the Celtic Sea and English Channel. Defra is working with the MMO to find solutions to under-reporting of marine mammals. We are also working to address this issue under our flagship bycatch monitoring and mitigation programme Clean Catch, surveying fishers about the barriers to self-reporting to better understand the issue and to find solutions.

The Scottish Government are working to find solutions to address under reporting of marine mammal bycatch and will be using existing processes to remind fishers of their reporting obligations. It will consider further rollout of REM to other parts of the fishing fleet using a proportionate and risk-based approach and linked to the development of its Future Catching Policy which will increase sustainability in fishing activity. Under the Future Catching Policy, measures will be taken to improve selectivity where required by introducing improved technical measures to mitigate sensitive marine species bycatch, working with stakeholders to explore and deliver solutions.

Ensuring that the right monitoring and enforcement tools are in place will deliver increased accountability and confidence in sea fishing activities, and in ensuring that the right data and knowledge is available on which to base management decisions. Engagement with stakeholders will play a key role in the development and implementation of a wider REM roadmap that will be developed in 2026/27.

Issue raised: Data omissions and gaps

Analysis

Some stakeholders flagged that marine mammal data is notoriously sporadic and reflective of inconsistent survey efforts. For example, we only provide insights into harbour porpoise bycatch and no estimate of bycatch at 'Management Unit' scales.

An ENGO stakeholder stated that pressures on cetaceans exclude the effects of the fishing industry on prey stocks. This was noted to be one of the single largest controlling factors of the overall population size of cetaceans, and its omission is problematic. It was also noted that cetacean data provided by the OSPAR QSR 2023 report was now out of date, and that other sources had not been utilised to fill gaps for 2024-5.

An ENGO respondent also noted that the full impact of disturbance on marine mammals due to offshore development, commercial shipping, and other industries is not well understood due to lack of systematic monitoring. Limitations in our understanding of how disturbance from human activities affects cetaceans at a population level was highlighted as a particular issue. Finally, one stakeholder observed that there were evidence gaps surrounding cetacean abundance and distribution, particularly during winter.

Government view

The OSPAR QSR 2023 did not include the latest SCANS IV (2022) survey data. This was due to the time needed to process and analyse the data in relation to the timeframe for delivery and sign off of the QSR assessments. The decision was taken to directly apply outputs from the QSR 2023 to deliver reporting on UKMS, which was a balance between effectively completing the assessments versus the resource that would be required to complete new data analyses. SCANS IV data has been incorporated into the upcoming 9a Habitats Regulation assessments (replacing European Article 17 reporting). When this is published, these outputs will provide the most up-to-date summary of status for UK marine mammal species. Broader pressures on marine mammal species are also considered in the upcoming 9a Habitats Regulation assessment.

Harbour porpoise is one of the species most commonly recorded as bycatch in UK fisheries. Other incidents of cetacean bycatch are recorded where observed through the BMP (e.g. seals). The bycatch indicator completed as part of the OSPAR QSR 2023 was expanded to include harbour porpoise at a wider scale, as well as assessments for grey seal and common dolphin to further develop the indicator and provide a more complete picture of risk. Additional species are now being considered for the next development of the indicator.

There are significant data gaps in knowledge of the effects of the fishing industry on prey stocks. This is a challenging evidence gap to fill as presently fishing records relate only to commercial catches. Work on prey depletion is ongoing under ASCOBANS which will support understanding of the perceived impact and highlight key risk. Further development

of indicators relating to health of cetaceans of marine mammals more widely is being discussed.

Both continuous and impulsive anthropogenic noise are assessed under UKMS. These indicators cover some noise impacts related to offshore developments and shipping. The Marine Noise Registry records licensed activities in UK seas that produce loud, low to medium frequency (10Hz - 10kHz) impulsive noise.

While the impact of disturbance on mammals due to the suite of anthropogenic pressures they are exposed to is challenging, what evidence is available in the UK is reported to ASCOBANS as part of annual reporting and addressed at a broader level through forums such as the International Whaling Commission (IWC). New and ongoing research related to this topic are also reviewed to consider where it may be applicable to support understanding of the impacts of activities causing disturbance.

Issue raised: Managing disturbance

Analysis

Respondents said that urgent changes to the law are needed to give police clearer powers to prevent disturbance because offences under section 9 of the Wildlife and Countryside Act 1981 (WCA 1981) should apply to all cetacean species.

It was further requested that wildlife crime involving disturbance be added to the notifiable crime register to allow better understanding of disturbance and its impact on achievement of GES, and to inform efforts to tackle it. One respondent highlighted that marine wildlife is subject to cumulative impacts from both continuous and impulsive noise and that further efforts must be made to reduce shipping noise and other sources of impulsive noise beyond offshore wind. Others recommend reporting on marine mammals and underwater noise together (Underwater Noise (D11)). Calls were made for threshold values to be urgently set and for the implementation of evidence-based pile-driving noise limits.

Government view

Existing protections under the WCA 1981 and Habitats Regulations provide comprehensive protection, including from disturbance. In addition, marine wildlife watching codes and best practice guidance has been produced by all governments in the UK. These codes inform members of the public the potential impacts of disturbance, and how to minimise disturbance to wildlife when using the coastal and marine environment. Industrial activities which may impact protected marine mammals within MPAs are managed through the implementation of Habitats Regulation Assessment (HRA) and EIAs. Management Units for cetaceans have been developed by UK statutory nature conservation bodies (SNCBs) and support the assessment of impacts on species from marine developments.

In January 2025, via the Marine Noise Policy Paper, the UK government encouraged all marine industries to take all necessary steps to reduce their noise. All offshore wind pile driving activity across all English waters is required to demonstrate the utilisation of best

endeavours to deliver noise reductions through the use of primary and/or secondary noise reduction methods. As set out in the revised Joint Position Statement³⁴, low noise methods of clearance should be the default method used to clear any type of unexploded ordnance (UXO) in the marine environment. Defra recognises the impact that both continuous noise and impulsive noise from other sources can have on marine mammals and is committed to minimising these impacts. The UK has also reaffirmed its commitment to addressing underwater noise by agreeing that OSPAR adopt in June 2025 the Regional Action Plan for underwater noise (RAP-Noise), which seeks to set out a series of national and collective actions to reduce underwater noise pollution in the OSPAR maritime region.

Changes to Descriptor 1 & 4: Cetaceans in the updated Marine Strategy Part One resulting from the consultation

The consultation has proved extremely insightful in highlighting the priorities of stakeholders regarding Cetaceans (D1, D4). We have flagged relevant activities in the above responses, but the issues raised do not require significant changes to the targets, indicators and operational objectives presented with the Thematic Assessment on MOAT³⁵ at this time.

4.2 Seals (Descriptors D1 & D4)

Issue raised: Targets and indicator development

Analysis

One respondent stated that the 2025 targets are an improvement on those from 2019. This sentiment was reflected by others, but they noted that it was essential that there is sufficient data to assess the targets. Alterations to targets to include a reference to decreasing bycatch for both seals and cetaceans were viewed positively, as was a target to improve population, abundance, distribution and seal pup production where populations are not achieving GES. Some stakeholders welcomed the potential to develop additional indicators for marine mammals to highlight trends likely linked to disease, climate change, and noise exposure indicators for both impulsive and continuous noise in UK marine protected areas.

³⁴ [Joint Position Statement](#)

³⁵ [Marine Mammals - Marine online assessment tool](#)

One ENGO disagreed with the conclusion that harbour seals had “partially met” GES and felt it should be “not achieved.” They pointed to a declining trend in the north-east of Scotland and the south-east of England as well as the uncertainty in parts of the Celtic Sea.

Some stakeholders made suggestions for new seal indicators, including one for seal nutritional status monitoring using blubber analysis, which can be measured on dead stranded and bycaught animals; a bycatch indicator; harbour seal pup production indicator, and one which assesses the impacts of abundance, migration and reproductive rates of pinnipeds in response to underwater noise. Setting a target to reverse the decline of harbour seals by the next assessment was considered important by one ENGO.

Government view

The positive comments on the improvements to the 2025 targets are welcomed. The status of 'partially met' refers to the status of seals overall, with the continued decline of harbour seals as limiting UK seals from meeting GES. The Marine Mammals Thematic Assessment states that harbour seals remain in decline throughout the UK.

We welcome the suggestions for further seal indicators, many of these have already been discussed and considered to some degree. Further indicators relating to body condition and nutritional status of marine mammals more widely are being discussed with the relevant experts. The application of data relating to dead/stranded animals, and bycaught animals only would need to be supplemented given the innate biases of these samples.

Issue raised: Data gaps and omissions

Analysis

Insufficient and outdated information was widely considered a major barrier to fully understanding the impact of bycatch on GES indicators for seals. Requests were made for more specific data on harbour seals to better understand their decline. Some stakeholders also asked for more detailed assessments of UK seal populations rather than basing the assessment on OSPAR data exclusively.

One respondent said that marine mammal data collection can also be sporadic, and reflective of inconsistent survey efforts. It was felt that it would be important to maintain and expand those monitoring programmes that meet ICES monitoring specifications, e.g., the UK BMP, and to update associated reports where necessary. The Marine Wildlife BMI was also noted not to have reported any progress since its publication in 2022. There are calls for such programmes to develop revised objectives and time bound targets to effectively minimise or eliminate bycatch.

Government view

Under the Conservation of Seals Act 1970 and the Marine (Scotland) Act 2010, the Natural Environment Research Council (NERC) has a duty to provide scientific advice to

government on matters related to the management of UK seals. NERC appointed a Special Committee on Seals (SCOS) to issue this advice on its behalf. This advice includes data on total and regional estimates and trends of UK seal populations, which are monitored by the Sea Mammal Research Unit (SMRU) at the University of St Andrews. These data inform a range of monitoring and management processes, including UKMS indicator assessments related to abundance, distribution, and bycatch.

Through this survey programme, key areas of harbour seal decline are monitored annually (with the aim of covering the whole coast in 5 years). Grey seal populations are monitored every 1-3 years and given the extensive area of coastline to cover in the UK, both species are monitored in totality on a 3-5 year cycle. Sufficient funds from UK government are necessary to support the continued delivery of these monitoring programmes in a manner that enables trends to be detected with confidence to allow responses by managers to better meet GES.

The SMRU, with the support of UK conservation agencies, Defra and the Scottish Government, is conducting research to better understand the drivers of harbour seal declines across both England and Scotland. Outputs from this research will be available in due course. The status of harbour and grey seals in the UK, as well as regionally, are publicly available on the SMRU website. Citizen science programmes may also contribute substantively to our understanding of seasonal and other distribution patterns for seals at sea in the future, in addition to evidence presently gathered through formal tagging and spatial modelling data.

Indicator and Thematic Assessments are carried out at appropriate scales for the species in question. The UK data used for OSPAR is identical to that which would be used for a UK-only assessment and so there is no more detailed assessment of UK seal populations that can be made. The OSPAR assessment details outputs at the scale of the UK for grey seals only. Harbour seals are assessed at the scale of individual country and monitoring specific coastal units relevant to the local populations - these outputs have been directly lifted and reported on from the UK perspective and are sufficient.

The OSPAR QSR 2023 M6 indicator³⁶ provides multilaterally agreed threshold-setting methods for bycatch of grey seals, harbour porpoise and common dolphin which the UK can apply. Given the highly mobile nature of marine mammals, thresholds agreed at the appropriate scale of the species range (i.e. European Atlantic scale) is often more appropriate. Additional mammal species may be included in the upcoming OSPAR IA2029, which may provide further suitable thresholds.

Both continuous and impulsive anthropogenic noise are assessed under UKMS. These indicators cover licensed noise impacts related to offshore developments and shipping.

³⁶ [documents](#)

The Marine Noise Registry records human activities in UK seas that produce loud, low to medium frequency (10Hz - 10kHz) impulsive noise.

Issue raised: Remote electronic monitoring (REM)

Analysis

As for cetaceans, respondents raised concerns that marine mammal bycatch is under-reported by fishers and cannot be relied upon to provide bycatch rates. It was suggested that REM should be rolled out to high-risk fisheries for bycatch, including static net fleets and boats under-10m, to better understand bycatch impacts.

Government view

Please refer to the government response to this issue for Cetaceans (D1, D4) above.

Issue raised: Seal population fluctuations

Analysis

Some ENGO respondents requested further analysis of the factors underlying the growth and decline of seal populations. One noted that a consideration of the impact of grey seals on harbour seals was necessary. Another commented that the increase in the UK grey seal population likely reflects recovery from historic declines caused by intensive hunting and pollution, and that presenting it as a genuine population increase is misleading. One ENGO stakeholder wanted to see more information on harbour seal status, noting that the focus appeared to be on grey seals.

Government view

In addition to the research, monitoring and advice set out above, funding secured from Natural England(NE) and Defra is supporting a programme of research by the SMRU to identify and investigate the drivers of the harbour seal decline in the south east of England, and includes consideration of the dynamics between grey and harbour seals as well as impact from other anthropogenic activities. The UK grey seal population likely reflects recovery from historic declines caused by intensive hunting and pollution. The OSPAR indicator that the UKMS Seal (D1, D4) outputs are drawn from³⁷ goes into this detail.

The Marine Mammal Scientific Support (MMSS) research programme, funded by Scottish Government, continues to support long-term research to investigate potential drivers and

³⁷ [Seal Abundance and Distribution](#)

causes of regional harbour seal declines seen across Scotland. The research has ruled out several factors as primarily causes of the decline, including entanglement, disturbance, lethal removal and bycatch. Investigations into other potential factors, including interactions between grey and harbour seals and killer whale predation are underway. The results of the research will be published in due course.

Harbour seal abundance and distribution is reported directly alongside reports of grey seal abundance and distribution in annual advice. Due to concerns of grey seal bycatch in the south-west of England, this species was included in the bycatch assessment this time around.

Issue raised: Managing disturbance

Analysis

As with cetaceans, some ENGO respondents requested that urgent changes be made to the law to give police clearer powers to prevent disturbance and provided detailed examples of seal disturbance incidents around England. They also recommend that that wildlife crime involving disturbance should be added to the notifiable crime register to allow better understanding of disturbance and its impact on achievement of GES, and to inform efforts to tackle it.

One stakeholder highlighted that marine wildlife is subject to cumulative impacts from both continuous and impulsive noise and that further efforts must be made to reduce shipping noise and other sources of impulsive noise beyond offshore wind. Calls were also made for threshold values to be urgently set and for the implementation of evidence-based pile-driving noise limits.

Finally, respondents noted that the full impact of disturbance on marine mammals due to offshore development, commercial shipping, and other industries is not well understood due to lack of systematic monitoring.

Government view

Seals and cetaceans share similar issues with disturbance, and we address these in the section above for Cetaceans (D1, D4). In addition, marine wildlife watching codes and best practice guidance³⁸ have been produced by all devolved UK governments to inform members of the public on how to minimise disturbance to wildlife when using the coastal and marine environment.

³⁸ [Marine wildlife watching codes and best practice guidance](#)

Changes to Descriptor 1 & 4: Seals in the updated Marine Strategy Part One resulting from the consultation

The consultation has proved extremely insightful in highlighting the priorities of stakeholders regarding Seals (D1, D4). We have flagged relevant activities in the above responses, but the issues raised do not require significant changes to the targets, indicators and operational objectives presented with the Thematic Assessment on MOAT³⁹ at this time.

4.3 Marine Birds (Descriptors D1 & D4)

Issue raised: Data issues and accuracy

Analysis

Whilst a few respondents said the assessment for Marine Birds is an accurate reflection of the limited progress made toward GES, several said it is inaccurate, incomplete and misleadingly positive, which risks masking issues and undermining policy responses. One respondent asked for a specific focus on tern species and their breeding success to be included. Others felt that a more integrated approach is needed to account for the cumulative impact of pressures on marine bird dietary profiles. Many pointed out that significant evidence gaps, outdated evidence and missing components undermine the credibility and robustness of the assessments. Several signposted us to more recent and additional sources of evidence that could improve the assessments and their relevance and asked that the impacts of the Highly Pathogenic Avian Influenza (HPAI) be accounted for. Others asked that quantitative assessments of predator eradication be conducted, and that the distribution of marine birds be re-assessed using Seabird Census data.

Respondents suggested a lack of funding and uneven coverage creates evidence gaps that limit our ability to make confident or granular assessments. Some stakeholders welcomed the integration of marine bird indicators to provide a comprehensive picture of marine bird status, and the alignment with OSPAR's coordinated environmental monitoring approach, but said that stating which species are assessed under each indicator and why would ensure the assessments are transparent and scientifically robust.

Government view

We agree that the UKMS assessments must be as accurate and salient as possible. We work within the constraints of the available evidence at the time of analysis, which was

³⁹ [Marine Mammals - Marine online assessment tool](#)

conducted in 2022-23. Other projects, such as the most recent breeding seabird census, Seabirds Count, and the subsequent HPAI surveys, were not available, or had not been fully quality assured, to enable inclusion within this assessment. It is also important to acknowledge that UKMS assessments are complemented by more granular assessments such as the Seabird Monitoring Programme (SMP)⁴⁰, Volunteer Seabirds at Sea⁴¹, the POSEIDON project⁴², and reviews of the Birds of Conservation Concern (BoCC)⁴³.

JNCC will update the Marine Birds Thematic Assessment as part of work on the OSPAR IA29. The bird abundance indicator should be ready to use in spring 2027, with the productivity indicator a year later in spring 2028. We therefore anticipate starting work on IA29 from March 2026, where we will draw on any comprehensive new data such as Seabirds Count. The HPAI survey work done by RSPB and partners will need critical evaluation as most species were not covered adequately to draw population level conclusions; it will be used where it is relevant and robust to do so.

For the OSPAR assessment indicators (abundance and breeding success) the reasoning for species selection is presented in the expandable section for assessment methods on MOAT⁴⁴, with the list of species outlined in the expandable section for the results. The only UK indicator that has multiple species is the distribution indicator for which the reasoning and species selection are found in the method and results sections.

Each Government is at different stages in the development of their conservation strategies for seabirds. Defra is working with stakeholders to consider the recommendations made in the English Seabird Conservation and Recovery Pathway report (ESCaRP). This includes potential actions to address evidence gaps and strengthen our existing monitoring programmes. The Scottish Government published the Scottish Seabird Conservation Action Plan in August 2025 and is working with stakeholders to take forward its actions. Stemming from this a Seabird Conservation UK Advisory Science (SCUAS) forum has been established by JNCC to consider, agree and instigate research on priority research needs. The draft Northern Ireland Seabird Conservation Strategy and Action Plan was consulted on in 2024 and is due for publication in 2026. Welsh Government will shortly be publishing its Seabird Conservation Strategy which contains evidence-based recommendations aligned with key pressures identified in Wales. Welsh Government will

⁴⁰ [Seabird Monitoring Programme | BTO](#)

⁴¹ [Volunteer Seabirds at Sea Surveys | Advisor to Government on Nature Conservation | JNCC](#)

⁴² [POSEIDON: Changing the game for offshore wind and nature – Natural England](#)

⁴³ [bocc-5-a5-4pp-single-pages.pdf](#)

⁴⁴ [Marine Birds - Marine online assessment tool](#)

establish a stakeholder working group to consider how best to take forward the recommendations.

Issue raised: Criteria, targets and indicators

Analysis

Some responses mentioned that the criteria proposed for the next assessment cycle show an incremental improvement, especially when aligned with OSPAR but for these to be fully sufficient they need to be matched by robust monitoring linked to clear delivery mechanisms. Respondents also said the criteria, targets and indicators need to be able to better reflect regional ecological variations whilst retaining cross-border collaboration. Some asked that GES targets be explicitly tied to the development and delivery of the four country Seabird Conservation Strategies. Respondents liked the new overarching targets and more integrated approach but noted that the scope and measurability of these may not drive environmental recovery.

Government view

Having common GES targets helps to ensure the four governments are aligned in our ambitions. We are currently establishing an overarching coordinating function to oversee implementation of seabird conservation activities across the administrations. The Scottish Government published the Scottish Seabird Conservation Action Plan in 2025. A Delivery Partnership has been established including representation from SG, NatureScot, JNCC, ENGOs, CES, fisheries and offshore wind sectors. The delivery partnership will consider and agree delivery targets to measure progress in Scotland.

Issue raised: Bycatch and REM

Analysis

Several respondents commented on the impact of bycatch on marine birds and the need for an operational indicator to effectively assess birds against GES targets for bycatch. Many pointed out that we had promised to develop a bycatch indicator in 2019 and asked how soon one could be developed as this is seen as a significant evidence gap for one of the biggest causes of marine bird mortality. Respondents told us that this indicator would need a functional monitoring programme across all four nations to be able to be adequately assessed.

Government view

The Defra and Scottish Government funded BMP includes seabird bycatch in its annual reports. Defra is also developing a separate seabird bycatch action plan for England, due in 2026, aligning with our commitments under international environmental agreements such as OSPAR, which includes a review of the evidence that is available to support this action plan (e.g., preliminary seabird bycatch estimates, seabird bycatch mortality, bycatch

hotspots, gap analysis, and a not yet published bycatch mitigation review). We have recently expanded our flagship bycatch monitoring and mitigation programme Clean Catch UK, to include seabird monitoring and mitigation trials, co-designed with the fishing industry in the northeast of England.

Please refer to the government response to the issues raised for bycatch in Section 1., and for issues of REM that were raised for Cetaceans (D1, D4).

Issue raised: The impact of climate change on marine birds

Analysis

Several respondents mentioned climate change being a key pressure acting on marine birds, with shifting prey distribution (i.e., forage fish) having tangible effects on predator populations. There are concerns that it is not sufficiently addressed as a driver of ecosystem change, which in turn then doesn't guide policy integration. Respondents told us that the significant challenges posed by climate change and disease outbreaks require adaptive and precautionary management approaches, with resources allocated to improve data collection and scientific understanding. Respondents also asked for stronger integration of marine bird conservation with climate adaptation policies to address the cascading effects of changing prey dynamics and extreme weather. Respondents also suggested that the 1992 baseline for marine bird populations is no longer appropriate because climate change is impacting population dynamics and this target may now not be achievable, with explicit links made to other interacting drivers.

Government view

Defra is working with stakeholders to consider the recommendations made in (ESCaRP). NE took climate change considerations into account and built these into all of the recommendation themes. This includes recognising the existing knowledge gaps around the impacts and proposing ways to address them.

The Scottish Seabird Conservation Action Plan also takes climate change considerations into account. This includes recognising the existing knowledge gaps around impacts. As mentioned above, the SCUAS forum has been established to consider, agree and instigate work on priority research needs.

Welsh Government will shortly be publishing its Seabird Conservation Strategy which contains evidence-based recommendations aligned with key pressures identified in Wales. Welsh Government will establish a stakeholder working group to consider how best to take forward the recommendations.

Issue raised: The impact of offshore wind farms (OFW) on marine birds

Analysis

Views differ over the impacts of offshore wind turbines on seabirds. Some said that, whilst Marine Birds are not achieving GES overall, those impacted most by offshore wind installations (i.e., those species which feed in the water column) are doing well. This includes species such as northern gannet, razorbill (Greater North Sea), and common guillemot. It is acknowledged that species such as Atlantic puffin and black-legged kittiwake did not achieve GES. There is concern that generalisations of GES status across all marine birds could result in stakeholders using this assessment to argue against the expansion of offshore wind installations. Stakeholders also asked us to clarify the most important marine areas for seabirds and to consider using these to inform compensation measures linked to offshore wind developments.

Government view

We acknowledge the potential for negative impacts on seabirds by offshore wind energy developments. The UK government, DGs of Scotland and Wales, and DAERA are implementing the Offshore Wind Environmental Improvement Package (OWEIP) to protect nature while delivering the Clean Power Mission. This includes the delivery of more effective compensation for the unavoidable impacts of offshore wind developments on protected sites and species.

To do this, we are working with experts and stakeholders including through the Collaboration on Offshore Wind Strategic Compensation (COWSC) programme to develop strategic compensatory measures that could be delivered either through the new Marine Recovery Fund or by developers in collaboration. COWSC is a cross-industry group with representatives including SNCBs, ENGOs, the offshore wind industry across the UK.

One of the first strategic compensatory measures to be approved is predator eradication to boost seabird numbers. COWSC has produced a draft predator eradication monitoring and implementation plan (IMP) which draws on existing evidence and desk-based reviews. The draft IMP identified 40 potential locations across the UK where predator reduction might yield an increase in seabird species populations, by providing safe nesting spaces without eggs being predated upon. Such predator reduction and the resulting increase in seabird populations could be adopted as strategic compensation by OFW developers for unavoidable impact of OFW construction and operation on seabirds and the Marine Recovery Fund is seeking to secure this strategic measure

The MSPri programme is helping avoid environmentally sensitive sites from OFW – see Section 1. As part of the OWEIP, we are also developing Offshore Wind Environmental Standards (OWES) to set out targeted mitigation measures with supporting guidance. They will first apply to Leasing Round 5 projects in the Celtic Sea and will seek to prevent and reduce impacts from offshore wind developments on marine habitats and species (including seabirds) before they occur.

The Scottish Government's analysis of their consultation on Scotland's Strategic Compensation Policy for Offshore Wind⁴⁵ is now available. The Scottish Government is also progressing a package of work to develop a portfolio of strategic compensatory measures designed to assess the feasibility of potential strategic compensatory measures for delivery in Scotland, with initial projects looking at measures for seabirds in Scotland.

Issue raised: Biosecurity

Analysis

You told us that invasive mammals on island seabird colonies remain a key pressure, with biosecurity and eradication being inseparable elements of conservation that need to work in tandem. You asked for a long-term funding plan to continue essential biosecurity and eradication measures that have been shown to work.

Government view

It has been encouraging to see the positive impacts that the Biosecurity for LIFE, and subsequent (ongoing) regional AfterLIFE projects have had on island seabird colonies. We are working with stakeholders to consider the recommendations made in NE's ESCaRP report including those relating to biosecurity and predator reduction at seabird breeding sites. As stated above, the draft IMP identified 40 potential locations across the UK where predator reduction might yield an increase in seabird species populations, by providing safe nesting spaces without eggs being predated upon. The intention is for the Marine Recovery Fund, which was launched in December 2025, to invest in appropriate predator eradication actions.

The Scottish Seabird Conservation Action Plan is taking forward biosecurity as a priority and an advisory group will be established to help facilitate action. Scottish Government is also working closely with the RSPB and partners to work through options to ensure the continuation of priority biosecurity work when the Biosecurity for Scotland strategy comes to an end in March 2026.

Welsh Government will shortly be publishing its Seabird Conservation Strategy which contains evidence-based recommendations aligned with key pressures such as biosecurity in Wales. Welsh Government will establish a stakeholder working group to consider how best to take forward the recommendations.

⁴⁵ [1 Introduction - Offshore wind - strategic compensation policy: consultation analysis report - gov.scot](#)

Changes to Descriptor 1 & 4: Birds in the updated Marine Strategy Part One resulting from the consultation

The consultation has proved extremely insightful in highlighting the priorities of stakeholders regarding Marine Birds (D1, D4). We have flagged relevant activities in the above responses but the issues raised do not require significant changes to the targets and indicators presented on MOAT⁴⁶ at this time.

4.4 Fish (Descriptors D1 & D4)

Issue raised: Bycatch is an issue for non-commercial species

Analysis

Many respondents from the ENGO sector highlighted concerns about bycatch of non-commercial species and the impact of discards. They highlighted that there is too much focus on activity to protect charismatic species as opposed to non-commercial fish such as Dab. Stakeholders also suggested that the issue with bycatch could be remedied through the adoption of REM (especially CCTV) on commercial fishing vessels (especially those with highest risk of bycatch and discarding). There were also criticisms of measures currently in place, such as the legal requirement of all fishing vessels (UK and non-UK) to report any marine mammals caught as bycatch and introduction for a voluntary phased adoption of cameras, both of which have not had the desired outcomes.

Government view

Ensuring that bycatch and discards are monitored and minimised within fisheries is a key focus for the UK, this includes consideration of non-commercial species. This is recognised within the drafting of FMPs, of which 11 have so far been published out of the total 43 FMPs to be delivered across the UK. One of these, as an example, is the Southern North Sea and Eastern Channel mixed flatfish FMP published in 2024. This plan, as with others, was developed in collaboration with industry, scientists, regulators, statutory nature conservation bodies and other fishery stakeholders. The FMP emphasises the Government's commitment to an ecosystem approach to fisheries management, and intention to minimise impacts on non-commercial species and the marine environment generally.

Since 2023, Defra has been considering discards reform in England to reduce its impact on quota and non-quota species including considering additional monitoring for vessels utilising REM systems. As stated previously for Cetaceans (D1, D4), Seals (D1, D4) and

⁴⁶ [Marine Birds - Marine online assessment tool](#)

Marine Birds (D1, D4), Defra is taking a targeted and phased approach to implementing REM in English waters, avoiding a one-size-fits-all approach, and beginning with specific priority fisheries across five years which include fixed and drift nets (gill and trammel) on vessels over 10 meters in English waters of the Celtic Sea and English Channel.

Defra have included an operational objective to 'develop an indicator for bycatch mortality and establish the feasibility of setting threshold values' in the Thematic Assessment for Fish (D1, D4) and have developed FMPs to reduce bycatch and improve the sustainability of non-quota species (NQS) stocks.

Issue raised: Data gaps and lack of monitoring for OSPAR sensitive fish species

Analysis

ENGOs highlighted data gaps particularly in reference to the impacts on marine life from fishing, the most obvious gap is that for non-commercial species and the need for greater monitoring of discarded commercial fish species. Other stakeholders felt that the assessment needs to monitor all OSPAR sensitive fish species and suggested that there are large data gaps in respect to these species. Some felt that the term 'sensitive fish' species is too vague and would like to see a clearer definition of what these are. The assessment also lacks specific monitoring of contaminants in fish and the impacts of persistent and bio-accumulative chemicals on fish biology and populations.

Government view

Sensitive fish are species with life history traits such as large ultimate body size, slow growth rate, large length and late-age-at-maturity. This definition will be included in the formal update to UKMS 1 in due course. The UK leads the D1 Recovery of Sensitive Fish Assessment at OSPAR, which assesses the status of 114 fish populations categorised as 'sensitive' that are caught in scientific trawl surveys. This indicator considers long-term trends by comparing occurrences of sensitive fish species from standardized scientific groundfish surveys between an assessment period (the most recent 6 years) and a reference period (>30 years). This assessment distinguishes between declining, recovering and stable occurrences of these fish species. Following the publication of the OSPAR QSR 2023 the UK translated the indicator data specifically for UK seas. The next OSPAR Intermediate Assessment (which will also be applied to UK seas) will be undertaken in 2029. These periodic assessments allow robust interpretation of the long- and short-term trends in a broad range of sensitive fish populations.

This indicator is considered appropriate for the broader fish assemblages occurring on the continental shelf around the British Isles, although species-specific data for some of the more threatened fish species (including some that are listed by OSPAR as Threatened and Declining species) are limited at the present time. We are considering those highlighted fish species that are declining over the long-term and how our policies could reverse this trend.

DAERA consulted on the draft Elasmobranch Conservation Strategy for Northern Ireland in 2024, which aims to improve and restore elasmobranch populations within the NI marine area through a number of actions focusing on monitoring and conservation and management advice.

Changes to Descriptor 1 & 4: Fish in the updated Marine Strategy Part One resulting from the consultation

The consultation has proved extremely insightful in highlighting the priorities of stakeholders regarding Fish (D1 and D4). We have flagged relevant activities in the above responses, but the issues raised do not require significant changes to the targets, indicators and operational objectives presented with the Thematic Assessment on MOAT⁴⁷ at this time.

4.5 Pelagic Habitats (Descriptors D1 & D4)

Issues Raised: Offshore wind impacts lacking from pelagic habitats

Analysis

ENGOS and Academia suggested that the current way we assess plankton is not sufficient. The UK should include measuring the impacts offshore wind will be having on plankton as that's missing from the assessment. There is also support for the inclusion of smaller elements of plankton in future assessments, as recommended.

Government view

The growth of OFW in UK seas may be having an impact on the marine environment including on plankton communities. The UK will continue working with contracting parties at OSPAR to improve our understanding of changes to pelagic habitats. Assessing offshore wind impacts is currently outside the scope of the broad-scale OSPAR indicators. This type of analysis would require small-scale localised case-studies in an area where there is sufficient overlap of wind farm deployments and in situ plankton data. Assessing the impacts of OFW on primary productivity, has been done in academic studies that use extensive modelled data and there is evidence that wind farms will have positive and

⁴⁷ [Pelagic habitats - Marine online assessment tool](#)

negative impacts on primary productivity dependent on location. It is a highly complex and developing field.

The three-year mNCEA programme established a coordinated pelagic monitoring programme for UK waters to monitor changes in our plankton communities, from inshore to offshore, and detect and understand changes in reliant food web species. The Environment Agency(EA) are currently delivering a fourth year of data collection in England to contribute towards a baseline, against which we can assess the impact of changing pressures in the marine environment on plankton communities.

Issues Raised: Assessment uses out of date data sets

Analysis

Some respondents agreed that the assessment provided a good overview, others expressed concerns that the assessment only provided an out-of-date picture of plankton, using data from 2020.

Government view

The UKMS assessment is based on OSPAR QSR 2023 and is the most up to date assessment available to provide useful trends for plankton. Most laboratories operate on a backlog of stored samples and their quality-controlled samples that can be considered reliable for analysis, are usually a few years out of date. We are also constrained by the time it takes to organise the data call, collect the data, conduct the OSPAR indicator assessments and integrated assessment, and deliver the UKMS assessment from OSPAR results,

In addition, the three-year Defra-funded mNCEA programme established a coordinated pelagic monitoring programme for UK waters to monitor changes in our plankton communities, from inshore to offshore, and detect and understand changes in reliant food web species. By year 3, targeted increases in sampling of zooplankton and phytoplankton in UK coastal, plume and offshore waters had identified 203 unique taxa and a total estimated count of 2,201,396 organisms. Number of taxa and total numbers have increased over the three years (with sampling density), suggesting we previously underestimated inshore zooplankton biodiversity. These data will feed into future assessments to provide a more up-to-date picture of the state of plankton communities in UK seas. Data from the EA-led pelagic monitoring project (see above) will feed into future reporting on Pelagic Habitats and plankton indicators for UKMS and at a regional sea scale for OSPAR, so that we can assess progress towards the achievement of GES for pelagic habitats.

Issues Raised: Assessment needs to consider particularly vulnerable habitats

Analysis

Some stakeholders said that the narrative in the assessments was not sufficient to reflect the important role played by pelagic habitats and how they are changing. Academia respondents want to see UK assessments and management being more responsive given the increasing evidence about the changing composition of UK plankton. Although related to D8 and D9 there were concerns about the particular vulnerability of pelagic habitats near and at the surface of the sea to chronic oil pollution. Pelagic habitats and plankton are a less considered ecosystem comparable to seaweed, zooplankton and insects of high ecological importance.

Government view

The full Thematic Assessment of pelagic habitats on MOAT does describe some of the pressures and future impacts we are likely to see as a result of pelagic habitat and plankton changes, such as trophic shortening. This is presented under the 'impact of pressures on ecosystem services' and the 'impacts of climate change on pressures and state' sections.

Untangling specific cause-and-effect relationships between given pressures – whether climate or other anthropogenic pressures – on pelagic habitats is challenging because they are complex and often cumulative. We will continue working with contracting parties at OSPAR to improve our understanding of specific pressures impacting pelagic habitats and the specific ecosystem and biodiversity impacts of a degraded pelagic state.

The three-year mNCEA programme established a coordinated pelagic monitoring programme to monitor changes in our plankton communities. This has provided the first consistent zooplankton information for inshore waters (i.e., coastal water bodies as defined by the Water Environment Regulations 2017), which are heavily influenced by land-based pressures. This indicates that nutrient imbalances are reshaping marine food webs, with impacts further offshore than previously imagined. The EA, the Centre for Environment, Fisheries and Aquaculture Science (Cefas) and the Marine Biological Association (MBA) are continuing to explore the impact of human pressures on vulnerable pelagic habitats through a Defra-funded project this financial year. This will provide analysis of existing data and develop diagnostic tools to improve assessment and understanding of nutrient pressures inshore and climate impacts offshore, how these are affecting plankton dynamics and consequently carbon transfer, food webs, fisheries, and sensitive marine species.

Changes to Descriptor 1 & 4: Pelagic Habitats in the updated Marine Strategy Part One resulting from the consultation

The consultation has proved extremely insightful in highlighting the priorities of stakeholders regarding Pelagic Habitats (D1, D4). We have flagged relevant activities in the above responses, but the issues raised do not require significant changes to the targets, indicators and operational objectives presented with the Thematic Assessment on MOAT⁴⁸ at this time.

4.6 Benthic Habitats (Descriptors D1 & D6)

Issues Raised: Completeness of assessments, monitoring and data gaps

Analysis

Several respondents pointed out that the assessments for Benthic Habitats were not available on MOAT at the time of launching the consultation, which they said was not acceptable because of the importance of these habitats to the health of marine ecosystems. Several respondents mentioned that the Benthic assessment suffered from a concerning lack of monitoring and pointed out that the assessment highlighted a decline in monitoring. They felt that several data gaps in the assessment are directly linked to this decline in funding and felt that GES was unlikely to be met unless this was rectified. In particular, they suggested additional monitoring was needed inside and outside of MPAs.

Government view

We apologise that the Benthic Habitat Thematic and Indicator Assessments were not available on MOAT at the launch of the consultation; this was rectified before the consultation period closed and we endeavoured to make the information available on request.

It is correct that there are evidence gaps for Benthic Habitats (D1) and Seafloor Integrity (D6), which hinder full indicator assessments. The Joint Nature Conservation Committee (JNCC) currently monitors a subset of ten offshore MPAs from the total of 56 MPAs. This is less than the recommend suite of twenty-four sites. Defra are currently considering monitoring requirements of our MPA network, which will inform future updates to UKMS

⁴⁸ [Pelagic habitats - Marine online assessment tool](#)

Part Two (which sets out the monitoring programmes we propose to use to collect the required data to assess the indicators).

The recommendations for twenty-four sites to be monitored in the six-year cycle would require seven offshore shelf sea MPA surveys taking place each year, plus an additional three deep sea sites, to provide fully effective monitoring of a representative sub-set of MPAs. In addition, as current monitoring is focused within MPAs, there is very limited data collected from outside MPAs, which restricts understanding of the environmental condition of the wider seabed and will in the future limit our ability to assess the effectiveness of management measures within MPAs. Additional funding has been provided to support benthic monitoring work more recently. This has been used to support two additional surveys in English waters, including one with a specific focus on assessing effectiveness of management measures and provide baseline information.

As part of the Defra mNCEA programme, offshore seabed surveys were conducted in OSPAR Regions II (Greater North Sea) and III (Celtic Seas) to collect data specifically targeting known data gaps for benthic indicators used in UKMS and OSPAR assessments. Surveys targeted areas of high- and low-pressure from mobile towed fishing gears, including areas outside of MPAs. Defra expect output data to be used in the forthcoming OSPAR IA29 assessment, which will inform the next UKMS Part One GES assessment to improve assessment resolutions.

Our benthic habitats indicators used data from the NE Evidence Base within inshore waters. Inshore and offshore monitoring data were combined with modelled data (UKSeaMap & EUSeaMap) to create the JNCC Combined Habitat Map, which was the best-available evidence at the time of assessment. *In-situ* survey data from wider OSPAR countries also informed assessments, contributing to GES outcomes in assessment units where waters were shared with Contracting Parties (e.g., OSPAR Regions II, III & IV).

The Mapping Offshore Northern Ireland (MONI) project carried out by Agri-Food & Biosciences Institute (AFBI) will provide a public dataset of a complete baseline seabed classification map by 2028. This dataset will be accessible for a wide range of stakeholders such as ENGOs and industry to identify species breeding grounds and commercially important species for potential future designation and protection.

In Scotland, we are using the Scottish MPA Monitoring Strategy to measure the effectiveness of the MPA network. The Monitoring Strategy sets out our approach to monitoring and ensures that the necessary evidence continues to be collected from the MPA network. This information will underpin assessment and reporting obligations, as well as enabling monitoring of the ecological benefits the network provides. Evidence-gathering relating to our MPA network is carried out by government, agencies, academics and often supported by citizen science projects.

The Scottish MPA Report 2024 was laid in Parliament and published online on 19 December 2024. Under the Marine (Scotland) Act 2010 and the Marine and Coastal Access Act 2009, there is a statutory requirement for Scottish Ministers to report to

Parliament every six years, setting out the progress that has been made in implementing and managing the Scottish MPA network.

The Welsh MPA Report was laid in the Senedd and published online in February 2025. Under the Marine and Coastal Access Act 2009, there is a statutory obligation for Welsh Ministers to report to the Senedd every six-year setting out progress made in achieving objectives relating to the Welsh MPA network.

We will also consider how to use other sources of evidence and data to augment our assessments as set out in Section 5: 'Next Steps' below.

Issues Raised: Benthic Habitats assessments are not adequately considering the impacts of OFW

Analysis

Respondents would like to see better representation of OFW, including the development of an indicator for 'Offshore structures and other activities' to integrate the potential impacts of offshore renewable developments into UKMS. Another respondent highlighted that the OSPAR indicator BH3c⁴⁹ assesses the extent of physical disturbance to benthic habitats caused by offshore structures and other related activities adequately. When considering the widespread roll out of offshore renewable energy developments that are likely to occur during the next cycle, the benthic habitats criteria are not being fully considered. Stakeholder said we need to use the mitigation hierarchy to ensure we are avoiding, mitigating, minimising and then compensating for the impacts from each development

Government view

As stated under the marine planning and prioritisation section, Defra's MSPri Programme has provided a strategic steer to The Crown Estate (TCE) on key marine policy interests related to potential future offshore wind development in the English sea. This guidance will help TCE in identifying suitable locations for future offshore wind lease areas which avoid the most environmentally sensitive areas (including birds) or areas which are important to other marine sectors and Government priorities.

Funding was allocated to JNCC through the FY25/26 R&D Commission to support the development of Disturbance from offshore installations (e.g., wind farms, oil and gas platforms, pipelines) sub-indicator (BH3c). This is a novel adaptation to improve the OSPAR Common Indicator to enable assessments of abrasion pressure associated with OFW installations. In addition, wider indicators, such as the Area of Habitat Loss Indicator (BH4) also consider the effects of offshore installations and associated cabling, and their

⁴⁹ [Extent of Physical Disturbance to Benthic Habitats: Aggregate Extraction](#)

impacts on habitat loss (see pilot for Greater North Sea), and will be used to further address this issue in forthcoming assessments.

Developing a strategic approach to offshore wind environmental monitoring was identified as one of the five policy measures under the OWEIP, with the objectives being to identify better use of monitoring data collected at offshore wind farms and to facilitate improvements to monitoring practices that can help address shared evidence gaps and areas of uncertainty.

The UK Government, DGs of Scotland and Wales, and DAERA are also working at the regional seas level through OSPAR with those countries we share our seas with to influence and promote the sustainable development of offshore renewable energy in the North-East Atlantic, focusing on minimizing environmental impacts, building on UK best practice in the sector.

Issues Raised: Data sources

Analysis

One ENGO felt the benthic Indicator Assessments are missing significant opportunities to access and use data from other sources – namely the ENGO sector. They highlighted that they gathered direct observation of the condition of benthic habitats using Remotely Operated Vehicles (ROVs) that shows extensive harms continuing to occur in the coastal waters.

They are happy to share the results of their ROV surveys of the seabed but suggest there is no mechanism through which to do this. They would welcome the opportunity for organisations that conduct relevant scientific surveys to submit their data to support assessments. They argued that creating straightforward routes for contributions from organisations and the general public and making clear how any submitted data will be used, is an important mechanism to secure a wide range of data which can be analysed to support GES assessment.

Government view

The UK Government, DGs of Scotland and Wales, and DAERA agree that citizen science and data collected through mechanisms outside the Government can be vital and important sources of information. Any such data would need to be quality assured and collected using a consistent protocol to ensure the data has salience and utility for UKMS assessments. OSPAR uses what they call “other data” where appropriate for their assessments and we will consider how we might integrate citizen science data when we update UKMS Part Two (Monitoring).

Issues Raised: Extractive activities in MPAs

Analysis

There were repeated calls by ENGOs to ban bottom trawling and ban or highly restrict other extractive activities including oil and gas and aggregates extraction, across all MPAs. One ENGO also called for fishing using dredging methods to be banned or restricted. This is linked to a call for management to better balance the needs of the environment and ensuring licensing consents and conditions adequately consider UKMS targets to enable benthic habitats to move towards GES. One respondent highlighted the statutory requirement to achieve GES, referring to evidence from Lyme Bay which shows the total abundance of taxa increased and was more resilient to storm damage following the banning of fishing activities that damage the seabed.

Government view

We are currently considering a number of ways to improve the effectiveness of the UK MPA network. As highlighted earlier, we are committed to achieving the statutory target to protect MPAs through the Environment Act (in England), which was introduced in 2023. This requires at least 70% of protected features in MPAs to be in a good and healthy state by 2042, with the remainder in recovering condition. Each MPA has been created to protect a specific feature - some of which are not directly affected by extractive activities such as bottom trawling for example harbour porpoise MPAs.

From the point of designation of an MPA, certain human activities, such as construction or dredging, are managed through the licensing and consents process. For fishing activity in Scotland, management measures were implemented in 2016 for a number of MPAs containing some of the most vulnerable of habitats in the network. Monitoring of these sites has identified improvements in their state, demonstrating the positive difference that effective management of MPAs can make. On 16 October 2025, the fisheries management measures for Scottish offshore MPAs came into effect, marking a significant step forward in safeguarding our seas for future generations. These measures mean that 93.5% of the Scottish offshore MPA network will be closed to bottom trawling, providing effective protection to our marine environment while supporting sustainable fishing activity. The Scottish Government will launch a consultation on proposed fisheries management measures for inshore MPAs as soon as possible after the Scottish Parliamentary election in May 2026.

Currently, 60% of English Marine Protected Areas are protected by byelaws that limit the use of damaging fishing gear. The MMO have consulted on proposals to ban bottom trawling in a further 41 MPAs, covering 30,000 km² of England's waters. Government will take decisions on this in due course. Byelaws to protect MPAs from damaging activity are developed using an evidence-led process to determine what measures are required to protect these specific features. Site by site assessments are carried out to tailor management measures and to avoid unnecessary restrictions. For example, only fishing activities which could damage the protected features of an MPA require management.

The Inshore Fishing (Prohibition of Fishing and Fishing Methods) Regulations (Northern Ireland) 1993 introduced restrictions for trawling in certain areas of the Northern Ireland zone. These included areas in Belfast Lough, Dundrum Bay, Carlingford Lough and

Strangford Lough. Trawling is also prohibited in the inshore waters off the North Coast by fishing vessels greater than 15.24 metres in length.

The Rathlin Island (Prohibited Methods of Fishing) Regulations (Northern Ireland) 2016 prohibited bottom trawling within Rathlin Island Special Area of Conservation (SAC). The Marine Protected Areas (Prohibited Methods of Fishing) Regulations (Northern Ireland) 2022 prohibit bottom trawling (and in some sites the use of static fishing gear) in 9 inshore MPAs.

In addition, in England we are currently reviewing and exploring ways the MPA network could better address nature biodiversity loss (including through accelerating progress towards GES) alongside making progress on wider government ambitions, such as supporting food security and the Clean Power Mission.

Issues Raised: Broadscale Habitats Indicators

Analysis

Several respondents highlighted concern or confusion with the broadscale habitats indicator with one disagreeing with the Government's GES conclusion. They stated it did not reflect the OSPAR QSR 2023 assessment conclusions. They also pointed to a lack of key information on the loss of seabed habitats, suggesting there are important evidence gaps including the impact of offshore structures on benthic habitats.

Government view

Criteria 1 (spatial extent of physical loss) was assessed using the information from the OSPAR QSR2023 pilot assessment "Area of Habitat Loss", which is available only for the Greater North Sea. For sealed loss, the OSPAR assessment concludes "Although the proportion of area estimated as sealed by offshore structures is still quite small, there is an increasing concern about future developments in the Greater North Sea, particularly with regard to the expansion of renewable energies." For unsealed loss, the OSPAR assessment concludes: "The analysis of trawling risk at the level of the assessment units has shown that the impact on some habitats is high and has further increased in the current assessment period." In the UKMS, GES for Criteria 1 was labelled as "uncertain" in the Greater North Sea, noting that there is moderate confidence in the results from the QSR2023 assessment for sealed loss, and low confidence in the QSR results for unsealed loss.

A new assessment of the Area of Habitat Loss indicator is planned for OSPAR IA29, which determines both "sealed" and "unsealed" losses of habitat. The assessment will evaluate area of habitat loss in OSPAR Region II (Greater North Sea) and in Region III (Celtic Seas) and will make use of latest and more comprehensive activity data obtained from OSPAR Contracting Parties through specific data calls. During this process, the UK will engage with assessment leads within the OSPAR Benthic Habitats Expert Groups to

contribute to the methodological improvements and analyses required to produce new assessment of the indicator with higher confidence in the results.

Changes to Descriptor 1 & 6: Benthic Habitats in the updated Marine Strategy Part One resulting from the consultation

The consultation has proved extremely insightful in highlighting the priorities of stakeholders regarding Benthic Habitats and Seafloor Integrity (D1, D6). We have flagged relevant activities in the above responses, but the issues raised do not require significant changes to the targets, indicators and operational objectives presented with the Thematic Assessment on MOAT⁵⁰ at this time. We have amended the indicator status for two indicators for the Benthic Habitats and Seafloor Integrity (D1, D6) assessment after an inconsistency was identified. Area of Habitat Loss for the Greater North Sea from '*not used*' to '*uncertain*' and the Condition of Intertidal Seagrass Communities in Coastal Waters in the Greater North Sea from '*partially met*' to '*met*' in the final UKMS1 Document.

4.7 Non-Indigenous Species (Descriptor D2)

Issues Raised: Lack of data and data management

Analysis

One respondent highlighted a lack of data as a significant problem, meaning a robust assessment cannot be undertaken. They noted gaps in understanding of the current baseline of non-indigenous species (NIS)⁵¹, the need for new projects to monitor the human-induced introduction of species which are invasive in the marine environment and the need for industry compliance with legislation such as the Ballast Water Management Convention. Finally, it was suggested that cooperation between government, and ports and industry would be beneficial. This could enforce and incentivise reporting of invasive species, and monitoring and enforcing compliance with regulation.

⁵⁰ [Benthic habitats - Marine online assessment tool](#)

⁵¹ The term 'non-indigenous species' (NIS), as used by The Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR) Commission and the UK Marine Strategy (UKMS), is used throughout this government response. This is the equivalent of 'alien species' (as used by the Convention on Biological Diversity (CBD) and 'non-native species'. It refers to a species intentionally or unintentionally introduced outside its native range by human actions. An 'invasive non-native species' (INNS) is any non-native animal or plant that has the ability to spread causing damage to the environment, the economy, our health, or the way we live.

Potential sources of new data from Citizen Science projects were highlighted by another ENGO stakeholder. The lack of a data repository was raised by one stakeholder, with them noting that there needs to be greater alignment across the UK to ensure we are tackling NIS effectively.

Government view

The lack of robust, risk-based monitoring for NIS is a key and recognised limitation which results in low confidence for both NIS indicators. There is no established monitoring at many key locations for NIS introductions and most new species are recorded opportunistically by volunteers, or from monitoring programmes on a relatively small spatial scale (for example, regular monitoring in Orkney), or from discrete and ad hoc studies with limited spatial and temporal scales. The status of NIS in the UK therefore remains uncertain.

With ports being a potential hot spot for introduction of NIS, we agree that further cooperation with this industry would be essential. We will work towards delivering a programme of standardised monitoring surveys with appropriate spatial and temporal coverage to provide adequate data and improve confidence in future assessments.

DAERA have conducted NIS surveys at a number of marinas since 2015, with a formal monitoring programme introduced in 2019. Surveys of licenced aquaculture sites within Northern Ireland coastal areas commenced in 2025.

Issues Raised: Targets lack ambition, re-focus assessments

Analysis

One ENGO respondent welcomed the inclusion of the indicator on the number of new populations of established invasive NIS registering new populations of established INNS around the UK. However, the 2025 NIS target 'the number of newly introduced NIS is *minimised*' was heavily criticised by another stakeholder as lacking ambition. When contrasted with 'if possible, *reduce to zero* the number of newly introduced NIS'(2019) it was deemed to have regressed. A call was made for this target to be measurable, with detailed and specific steps to reach this. Other respondents asked for this Descriptor to be replaced by an aquaculture and man-made structures Descriptor, saying the link between this and NIS is clearer and more pressing.

Government view

We understand the concerns about the new GES target for D2 NIS Indicator 1. We have taken expert opinion and believe the new wording will drive action to reduce NIS because it is more realistic and achievable. Furthermore, recommendations for future improvements have been developed by the UK Marine INNS Task and Finish Group (2025) for consideration by the Great Britain Non-Native Species Secretariat (GBNNS) Board.

Issues Raised: NIS Vectors and Management

Analysis

Respondents highlighted vectors which contribute to the spread of NIS. These include construction activities, offshore wind structures and increased vessel movement. An ENGO noted that the development of the Draft Offshore Renewable Energy Action Plan (OREAP) means there is potential for existing structures to become transient hotspots for NIS. They suggested that a register of vectors where NIS incursion has been mitigated, or establishment prevented would be beneficial.

Another respondent described what they perceive to be a lack of action to tackle or manage invasive species once established. They stated that there should be a focus not only on prevention, but also on tackling the issue where establishment has already taken place.

Government view

Management measures currently applied form part of an existing plan under the GBNS 2023-2030, and recommendations for future improvements were developed by the UK Marine INNS Task and Finish Group (2025) for consideration by the GBNS Board.

It is recognised that shipping is one of the main pathways for potential introduction and spread of NIS. In UK, various legislations and guidelines exist to ensure the risks from NIS are prevented. For ballast water, the UK has implemented the International Ballast Water Convention's requirements through the Merchant Shipping (Control and Management of Ships' Ballast Water and Sediments) Regulations 2022. Vessel biofouling is managed through voluntary guidelines developed by The International Maritime Organisation (Guidelines for the control and management of ships' biofouling to minimize the transfer of invasive aquatic species).

A public consultation on NIS Pathway Action Plans is scheduled for early 2026, which will include recreational vessels (marine and freshwater), recreational angling (marine and freshwater). Action plans for Aquaculture and Commercial vessels, both for the marine environment are also being prepared.

Changes to Descriptor 2: Non-indigenous Species in the updated Marine Strategy Part One resulting from the consultation

The consultation has proved extremely insightful in highlighting the priorities of stakeholders regarding Non-indigenous Species (D2). We have flagged relevant activities in the above responses, but the issues raised do not require significant changes to the

targets, indicators and operational objectives presented with the Thematic Assessment on MOAT⁵² at this time.

4.8 Commercial Fisheries and Shellfish (Descriptor D3)

Issue raised: D3 lacks sufficient scope and ambition

Analysis

Some respondents said that they would like to see increased ambition for this descriptor and the opportunity it offers to tell a wider narrative about our fisheries and the pressures they place on our seas. They would also like to see new indicators developed that help fisheries managers make better links between FMPs and GES, suggesting that this could be as a percentage of 'swept area' by bottom contact gears, and how this is either static, increasing or decreasing.

Government response

Defra recognise the desire from stakeholders to broaden our assessment for D3 we are considering these whilst retaining alignment with the EU Marine Strategy Framework Directive (MSFD) for shared fisheries. Our ambition is to better align fisheries measures with UKMS and GES. We hope this will help illustrate the efficacy and impacts of new measures in terms of progress towards GES. The JFS and FMPs are both relatively new but will be considered in future updates as FMPs develop and reporting against the JFS progresses. The impact of bottom contacting gears is included as an indicator in our benthic habitats assessment.

Issues Raised: D3 lacks climate consideration

Analysis

Many fishing industry respondents highlighted that climate change impacts and distribution shifts will be influencing natural ecological changes within the food web and stocks. Some respondents from the fishing sector would like to see climate change being included in stock assessments and a focus on movements of stocks, particularly those moving northward.

Government view

⁵² [Non-indigenous species - Marine online assessment tool](#)

Untangling impacts from food webs changes, fishing pressures and climate change is challenging. In response, the updated Thematic Assessment for Commercial Fish and Shellfish proposes a rational objective to consider the timescale for stocks to respond to fisheries management measures, including the impacts from climate change. We will review this and other operational objectives when we update UKMS Part Two (monitoring programmes) in due course.

Tracking specific movement of stocks is currently out of scope for this Descriptor and its indicators. However, any impacts of climate change on aspects such as recruitment and growth of stocks are implicitly considered in stock assessments. Estimates of maximum sustainable yield (MSY) and predictions of sustainable harvest levels will also reflect any influence of current climate conditions.

Issues Raised: UK Fishing above TACs

Analysis

ENGO respondents expressed dissatisfaction with the UKs TAC setting and the level of fishing pressure. There were specific references to further declines to the most depleted stocks such as Cod, Haddock, Herring, Whiting and Pollack still facing fishing pressure.

Government view

We understand the concerns expressed regarding fishing pressure. The UK remains committed to managing our fisheries at sustainable levels and recognises that fisheries activities will need to continue adapting to changes in stock distribution and condition.

The majority of our fisheries are not managed in isolation. For shared (straddling) stocks, the most effective measures are often those agreed with Coastal State partners. We continue to work closely with other coastal states on a broad range of fisheries management issues.

We recognise the complex challenges presented by the ICES advice for Northern Shelf cod and the uncertainty around the mixing of the three sub-stocks. The UK is continuing to work with ICES to progress workstreams that will improve our understanding of sub-stock dynamics. In December 2025, the UK agreed a package of measures with the EU and Norway, including an agreed TAC level, that supports the long-term sustainability of the stock as well as the economic viability of the fleets.

FMPs are a requirement of the Fisheries Act 2020 and the UK Joint Fisheries Statement (JFS). An FMP is an evidence-based action plan that supports delivery of sustainable fisheries for current and future generations. FMPs are long-term plans that must be reviewed and, if necessary, revised at least once every 6 years. They are adaptive documents designed to respond to changing circumstances. They set out both a longer-term vision and goals for the fishery (or fisheries), together with the policies and management interventions necessary to achieve these.

So far, 11 Defra-led FMPs have been published. Scottish Government have separately launched a consultation on their first 11 FMPs covering demersal stocks in November 2025, before intending to consult on others covering Nephrops and pelagic stocks in due course. Further to this, Northern Ireland and Welsh Government also plan to consult on others for which they are the coordinating Fisheries Authority as set out in the JFS.

The UKMS and Fisheries Act must both consider GES and the sustainability objective. The UK sets catch limits in line with the Fisheries Act 2020, JFS and all other relevant obligations. FMPs are designed to support the sustainability of stocks referenced above and will continue to try to balance the fishing capacity of fleets so that fleets remain economically viable but do not overexploit marine stocks.

Issues Raised: D3 lacks stock-by-stock specific Analysis

Analysis

ENGO respondents wanted stock by stock explanations where GES has been exceeded and others wanted more recent stocks assessments included with the latest ICES advice. Others referenced a failure to deliver on the UK Fisheries Act's precautionary objective that "exploitation of marine stocks restores and maintains populations of harvested species above biomass levels capable of producing maximum sustainable yield."

Government view

This latest update to the UKMS has for the first time included reference to specific stocks that have had their GES status changed between cycles. An explanation for each stock would be out of scope for inclusion with the UKMS. The UKMS and its D3 Commercial Fish assessment is a retrospective assessment based on a given assessment period to provide consistent comparisons with previous UKMS updates. Although useful context in terms of current picture, more up to date assessments and ICES advice are out of scope for D3.

Cefas, on behalf of Defra, assesses the sustainability of negotiated fisheries catch limits for the UK annually. (Assessing the sustainability of fisheries catch limits negotiated by the UK for 2024 - GOV.UK). Note that this is not an evaluation of whether the TACs achieved their aims of sustainable fishing, more an analysis of management intentions.

Issues Raised: D3 lacks offshore wind impacts

Analysis

Many respondents from the fishing industry referenced concerns in respect to the rapid expansion of offshore infrastructure which has the potential to completely reshape localised ecosystems and fish stocks. They would like to see better use of offshore wind evidence in this assessment.

Government view

Our understanding of offshore wind impacts on fish stocks, fish biology and fish habitat is less well understood. This may be an emerging pressure in UK seas, and we will consider any research and policy making to reduce the risk of impacts. For example, the Scottish Marine Energy Research Programme (ScotMER) is a Scottish Government initiative that identifies and addresses key evidence needs to help inform licensing, consenting and planning decisions concerning offshore renewable developments. The ScotMER programme focuses on 7 key receptors which cover: Ornithology, Diadromous Fish, Marine Mammals, Fish and Fisheries, Benthic Ecology, Physical Processes and Socioeconomics. Each receptor has a designated Evidence map outlining the evidence needs in that respective research area.

The ScotMER Fish and Fisheries evidence map currently has 14 different evidence gaps with topics that range from marine fish ecology to commercial fisheries in relation to offshore renewable energy developments e.g. underwater noise and vibrations and fisheries displacement. The ScotMER programme funds projects to address these evidence gaps and help build the knowledge base.

Recent projects have included developing Essential Fish Habitat (EFH) maps to show important areas for fish spawning and nursery grounds and a recently completed good practice guidance for effectively monitoring the potential impacts of offshore renewables on marine fish and shellfish. There is also an ongoing project to develop methods for measuring and modelling electromagnetic fields (EMF) emissions for subsea cables and methods to assess the potential impacts of EMF on marine species.

Issues Raised: Non-quota finfish species are missing, and non-quota shellfish data is limited

Analysis

Respondents desired to see all non-quota finfish species particular in those in the English waters, such as witch sole, john dory, lemon sole, squid, etc., that are within the 43 UK FMPs included in D3 Commercial Fish GES assessment. Respondents also highlighted that our stocks assessments for non-quota shellfish species needs improving.

Government view

Defra recognises that this assessment is limited as NQS are data-limited, and many have no existing methodology for MSY equivalent assessment to set sustainable catch limits. Whilst in many cases these are currently under development, until such assessments exist, demonstration of GES will remain challenging for NQS and data-limited stocks. This is why the D3 evidence challenges section outlines that ‘monitoring and research programmes are required to address the lack of robust data and knowledge gaps in the underlying biology for data-limited stocks, and non-quota finfish and shellfish stocks, to feed into future stock assessments and determine sustainable reference points for more stocks, and to inform fisheries management advice.’ FMPs will support Defra’s

understanding of the most vulnerable NQS and both UKMS and FMPs will better incorporate finfish data as the FMPs and associated data develop.

Issues Raised: language in targets appear less ambitious and narrowed in scope

Analysis

Some ENGO respondents voiced concerns about specific language used in the D3 assessment. Some respondents took issue with the use of 'stocks of UK interest' for the overarching target and another for use of 'where feasible reversed' when considering trends.

Government view

Defra recognise the concerns about a perceived narrowing of scope. The use of UK stocks is consistent with the previous update, but we will review the wording to make it clear that the UK is not reducing its efforts or disregarding stocks or species from the current or future assessments. As highlighted in the assessment we recognise more work is needed particularly regarding less well understood stocks (e.g. non-quota). The evidence challenges as found on MOAT⁵³ highlight that the UK needs to address the lack of robust data and knowledge gaps in the underlying biology for data-limited stocks, and non-quota finfish and shellfish stocks, to feed into future stock assessments.

Issues Raised: ICES/MSY and SSB (Spawning Stock Biomass) are limited in scope

Analysis

Respondents from the environment sector felt that the scientific single-stock advice from ICES that is currently used to inform fishing opportunities is not fully recovery-focused, sufficiently precautionary and ecosystem-based, and TACs set – as well as actual catch levels – at or above such levels. Fishing industry respondents also expressed concerns about the use of MSY and SSB as they are designed for fisheries management purposes, not to be an indicator of marine health and thus are not fit for the purpose of delivering on all relevant elements of GES.

Government view

The method used for the D3 assessment to assess GES is internationally agreed and considers the most robust indicators that are available with the required data to enable an assessment. MSY and the associated Fishing pressure and SSB metrics are considered

⁵³ [Commercial fish and shellfish - Marine online assessment tool](#)

useful benchmarks for assessing whether stocks are experiencing “low fishing pressure” and therefore appropriate to be part of the GES descriptor framework. They are, however, not the only metrics considered.

Changes to Descriptor 3: Commercial Fish and Shellfish in the updated Marine Strategy Part One resulting from the consultation

The consultation has proved extremely insightful in highlighting the priorities of stakeholders regarding Commercial Fish and Shellfish (D3). We have flagged relevant activities in the above responses but the issues raised do not require significant changes to the targets, indicators and operational objectives presented with the Thematic Assessment on MOAT⁵⁴ at this time.

4.9 Marine Food Webs (Descriptor D4)

Issues Raised: Assessments currently lack holistic food web considerations

Analysis

Some ENGOs felt that assessments currently fail to take account of the ecosystem needs of healthy fish populations. Fishing industry stakeholders highlighted impacts on recruitment resulting in predator prey imbalances. Stakeholders want to see better representation of predator-prey dynamics with a new indicator. This would enable the assessment to assess the interconnected nature of marine ecosystems. This would enable the assessment to show the effective management of species like sandeels in relation to seabird productivity. Some respondents were concerned that the assessment does not fully reflect all the relevant UK legal requirements and policy objectives and is not geared towards recovering healthy fish populations and food web integrity in line with an ecosystem-based approach to fisheries. Some also said that ecosystem modelling could be used more widely to improve Marine Food Web assessments and help to pinpoint measures in response to this.

Government view

Both the Fish (D1) and Marine Food Webs (D4) assessments consider fish assemblage health indicators that are responsive to wider changes in ecosystem structure and

⁵⁴ [Commercial fish and shellfish - Marine online assessment tool](#)

functioning health indicators. This includes indicators such as, Size Composition in Fish Communities, Pilot Assessment of Feeding Guilds, Proportion of Large Fish (LFI) and Pilot Assessment of Mean Maximum Length of Fish. Whilst not incorporating prey availability specifically, this does provide an overview of fish health in UK seas. Whilst trends show a less favourable condition across these indicators, determining the driver of any change to fish size or mortality is a particular challenge in the varied, turbulent and industrialised environment of the Celtic and Greater North Sea.

The assessment of the state of Marine Food Webs (D4) in UK waters was undertaken using a variety of indicators (common and candidate), methods and spatial scales. A set of indicators focusing on different trophic levels (e.g. primary production, zooplankton, fish, whole food web) was independently assessed. These are designed to look at different aspects of food web functioning, of which fish are a part.

Because the food web assessment considers all these aspects, the suite of indicators is geared towards facilitating ecosystem-based fisheries management. We acknowledge that this is a key area that could be further developed. Cefas are developing indicators to assess prey availability, human activities, and climate change in food webs, which they will submit to OSPAR for review. We will continue to consider the role of ecosystem modelling in our decision making. It was integral in Defra's decision to protect sandeels as one of the most important forage fish in the North Sea, contributing to the diets of mammals, seabirds, and predatory fish.

Defra are also considering new evidence from the mNCEA programme's pelagic monitoring project. This monitored changes in our plankton communities and explored impacts on reliant food web species. The findings indicate that large changes in the plankton community, generated in part by human-influenced pressures, including climate change, will likely compound to generate impacts further up the marine food web.

Issues Raised: Climate change is causing fish biology (maturity) to accelerate

Analysis

Stakeholders from the fishing sectors highlighted that climate change and warming waters often mean that the fish biology can become accelerated, with potential impacts such as fish becoming mature at an earlier age, and the maximum size to decrease.

Government view

Climate change and warming waters are likely to be impacting fish biology. The relevant fish assemblage size indicators under D4 Food Webs will provide helpful trends for fish populations in UK seas. The current assessment uses a time-series approach to identify long-term changes in state and further investigation is required to identify if reductions in the size structure of assemblages is due to human activities, food web interactions or prevailing climatic conditions. We will continue to monitor changes and detangle the associated pressures.

As part of the rolling updates commissioned by MCCIP, Cefas are responsible for drafting new versions of the supporting documents on 'fish' and on 'fisheries.' It is envisaged that these will be published in March 2026. The MCCIP 'fish' review typically covers topics including impacts on fish reproduction, such as larval survival and growth rates, changes in fish distribution, effects on stock recruitment and fisheries yield, consequences of marine heatwaves on fisheries catches and impacts of extreme weather on fishery operations.

Changes to Descriptor D4 Food Webs in the updated Marine Strategy Part One resulting from the consultation

The consultation has proved extremely insightful in highlighting the priorities of stakeholders regarding Marine Food Webs (D4). We have flagged relevant activities in the above responses but the issues raised do not require significant changes to the targets, indicators and operational objectives presented with the Thematic Assessment on MOAT⁵⁵ at this time.

4.9 Eutrophication (Descriptor D5)

Issues Raised: Support for proposed criteria and indicators

Analysis

There were mixed views about the suggested changes to wording of the Overarching Target for D5, and strong support for new proposed criteria and indicators, especially those for monitoring total nitrogen and total phosphorous. Overall, proposed changes are seen as improvements to the UKMS assessment for eutrophication and are further supported where they will maintain alignment with proposals at OSPAR. The importance of ensuring approaches to monitoring and assessment are aligned across the UK for the new proposals is also strongly supported.

One stakeholder welcomed the inclusion of Dissolved Inorganic Phosphorus (DIP) which accounts for source to sea influences from freshwater catchments and improves alignment between marine environments and also assessments of Dissolved Inorganic Nitrogen (DIN).

Government view

⁵⁵ [Food webs - Marine online assessment tool](#)

We support the proposals made by our experts for new criteria and indicators. The proposals are aligned to OSPAR, and work is already progressing to enable such assessment and monitoring within the UK, led by Cefas. Wider active R&D proposals will help enable the alignment UK wide.

Issues Raised: GES conclusion is contested

Analysis

Several respondents said the status of GES for Eutrophication should be changed to 'uncertain' because only one of the relevant indicators is fully met across all UK waters, with the others being 'partially met.' Other factors said to weaken the assessments include data gaps for inshore waters, evidence that excess nutrients are causing MPAs to fail to meet their conservation objectives (Welsh waters), and that OSPAR data shows a lack of reduction for nitrogen inputs. They said that the conclusion is also at odds with the increase in incidents of sewage discharge events across the UK's waterways in recent years, and the assessment of other Descriptors (for example Benthic D1, D6 and Pelagic Habitats D1, D4), which highlight Eutrophication as an issue of concern. There was also a suggestion that nutrient monitoring should become routine across all MPAs.

Government view

We acknowledge the concerns and reasoning provided by respondents as to why they feel D5 assessment should be reclassified as 'uncertain' or 'not met'. As highlighted by the thematic assessment, the 'not met' status is only applicable for a small percentage of UK waters (less than 5%) meaning our expert assessors concluded that all indicators are 'met' on balance.

We recognise that water quality pressures have the potential to hinder the conservation objectives of HPMA's. NE, in collaboration with the EA, has undertaken initial sampling of a suite of water quality parameters and contaminants, including nutrients, at Allonby Bay HPMA as part of the HPMA ecological baseline monitoring programme across 2023 and 2024. Defra is working with NE and EA to understand those results and to develop a refined monitoring approach in response.

The apparent lack of alignment with the results of OSPAR QSR 2023 is due to the different data sources used (the OSPAR QSR 2023 has multiple Contracting Party data sources included, not just those from the UK). The indicators for D5 eutrophication and D1 pelagic habitats are measuring different outcomes: D5 assess when excess nutrients have reached certain thresholds (negative impacts), whereas D1 Plankton assesses the optimal nutrient balance for normal functioning of the ecosystem. We do acknowledge that both assessments highlight that nutrient loading into UK sea areas is becoming imbalanced, resulting in potentially detrimental mismatches of nitrogen and phosphorus concentrations in UK river-influenced marine waters.

Issues Raised: Alignment UKMS and WER

Analysis

There are calls for better alignment between the UKMS and water framework regulation (WFR) assessments. This would enable the use of more freshwater data in the UKMS assessment providing a more accurate picture of eutrophication status, especially as many eutrophication inputs come from directly land and via rivers. The option of using the current review of water framework regulations in England is seen as a potential opportunity to improve alignment. This also fits with the views of respondents that source to sea management is required across a range of areas, but especially those related to nutrients and contaminants, where management of land-based inputs is key to reducing impacts in the marine environment.

Government view

The approach called for above aligns to data use in OSPAR, where riverine and direct discharge data is used in annual nutrient and contamination assessments under the OSPAR Riverine Inputs and Direct Discharge (RID) programme. The governments of England and Wales are currently in the process of reviewing the WER and identifying the right approach to take forward the recommendations of the Independent Water Commission's final report. We will continue to work with all Governments and agencies to consider opportunities for better alignment with other monitoring and regulatory frameworks.

Changes to Descriptor 5: Eutrophication in the updated Marine Strategy Part One resulting from the consultation

The consultation has proved extremely insightful in highlighting the priorities of stakeholders regarding Descriptor 5 Eutrophication. We have flagged relevant activities in the above responses, but the issues raised do not require significant changes to the targets, indicators and operational objectives presented with the Thematic Assessment on MOAT⁵⁶ at this time.

⁵⁶ [Eutrophication - Marine online assessment tool](#)

4.10 Hydrographical Conditions (Descriptor D7)

Issues Raised: Current narrative and lack of assessment is inadequate

Analysis

Several stakeholders asked for an assessment of D7 to be conducted as a priority, saying that the marine licensing and consenting regimes are not currently sufficient to mitigate for significant, and cumulative, impacts. They also point to increasing evidence about the likely, but only modelled, damaging impacts of offshore wind farm installations on hydrographical conditions. Some mentioned that offshore infrastructure and other artificial structures (e.g. wrecks) can sometimes have a positive impact on this Descriptor, altering conditions locally to support marine ecosystems. They also asked for this Descriptor to be developed further to provide a narrative about how adequate our decision-making mechanisms are and for it to be expanded to include industrialisation and governance more widely.

Stakeholders also suggested that there is new evidence that would support an adequate assessment of hydrographical conditions, along with outputs from research and other projects focused on the cumulative impacts of offshore developments (mainly offshore renewable energy installations). They also suggested that, whilst no criteria or specific indicators exist to facilitate an assessment, there are options for developing these now, which could then be used in an assessment.

Government view

We agree that understanding the state of hydrographical conditions in our shared seas is important. We will work with OSPAR Contracting Parties (CPs) and the associated expert group, led by the Netherlands and Belgium, to complete the planned assessment of D7 for the OSPAR IA29. We advocate that this may need to consider how we integrate the findings from the other Descriptors that impact hydrographical conditions. For example, there are plans to develop an “Extent of Physical Disturbance to Benthic Habitats: Offshore structures and other activities” indicator for Benthic Habitats (D1, D6).

In advance of this we need to ensure that we have the right data and will consider how to address monitoring and data issues when we update UKMS Part Two in due course. It is likely that the evidence needed to conduct an assessment will continue to improve in the medium-term (1-2 years).

In addition, we also think that an assessment of this Descriptor would also work best as part of a cumulative effects framework. The UK government actively participates in the Greater North Sea Basin Initiative (GNSBI) work on cumulative impact assessments

(CIAs) and updates the DGs of Scotland and Wales, and DAERA on progress. This aims to strengthen collaboration between Greater North Sea countries, and with existing regional bodies such as OSPAR, ICES and North Sea Energy Cooperation forum (NSEC), to improve cumulative impact assessment methods, data collection and data sharing at a sea-basin scale. Alongside the work on CIA through GNSBI, we will be exploring how we can apply CIAs at a large scale, and how they might be used to help shape future policies within the marine planning system.

Current understanding of how to assess and respond to cumulative impacts remains limited with research programmes and initiatives focusing on how to improve the use of modelled scenarios to explore how marine infrastructure developments might impact hydrographical conditions. We are therefore considering how to assess and respond to the cumulative pressures of localised activities, and the significance of these aggregated small-scale changes. OSPAR is also exploring how to address regional cumulative effects in our shared seas, given the transboundary impacts of other countries. In the meantime, we direct stakeholders to the government views put forward on marine planning and spatial prioritisation because these apply here also.

We will continue to monitor and report on prevailing conditions in our shared seas and use this evidence to inform our detailed assessments as appropriate. We have considered the option to conduct an assessment based on the current prevailing conditions evidence and have concluded that this would not be suitable for a 'proxy' assessment in this instance.

Issues Raised: Ensuring the impacts of developments on hydrographical conditions are considered in licences and consents

Analysis

A few respondents note that it will be increasingly important to take account of the cumulative impact of offshore developments on this Descriptor in licencing and consenting decisions and that a spatially prioritised approach to these decisions could help mitigate impacts. They acknowledge that it will be difficult to achieve GES due to the rapid growth of offshore wind farms and that trade-offs will be needed to accommodate requirements to deliver clean power, and the contribution of offshore wind farms to this target.

Government view

Marine plans aim to guide sustainable development in marine areas by balancing economic, environmental and social policies. They provide a framework for decision making that ensures marine activities support healthy ecosystems, contribute to the economy and align with national and international marine policy objectives. The MPS allows for marine plans and licences to consider GES targets.

Marine Planning contributes to addressing hydrographical conditions through marine plan policies on climate change, MPA's and cumulative effects. In England, following the

decision to replace the East Marine Plan, work is currently underway to draft a revised set of policies and plan documents, with adoption anticipated in 2027. As part of this process Defra are drawing on a wide range of evidence including, the outcomes of licensing assessments, industry evidence and stakeholder knowledge. Reports on marine plans will continue to be produced every 3 years, in line with the relevant requirement in the Marine and Coastal Access Act, to determine if they are effective in meeting their policy objectives.

Defra is also working with the Marine Management Organisation and Cefas to explore how Cumulative Impacts Assessments could be used to influence marine plan policies, and how to use outputs from projects such as MSPACE⁵⁷ to inform our approach to achieving GES for Hydrographical Conditions.

Changes to Descriptor 7: Hydrographical Conditions in the updated Marine Strategy Part One resulting from the consultation

The consultation has proved extremely insightful in highlighting the priorities of stakeholders regarding Hydrographical Conditions (D7). We acknowledge the concerns raised about the lack of formal assessment and that impacts on hydrographical conditions will likely increase as offshore developments increase, and therefore detecting and mitigating for these impacts is important.

We will support the planned assessment of D7 for OSPAR IA29. We will also keep this Descriptor under review and ensure D7 remains aligned with OSPAR and any changes to D7 in the EU MSFD.

4.11 Contaminants (Descriptor D8)

Issues Raised: Need to monitor chronic oil pollution

Analysis

Oil pollution is only monitored in terms of significant spills at present. Several respondents said that the current threshold of only assessing spills of over 1 tonne misses many of the smaller chronic spills from offshore activity. They asked for all spills to be monitored for the next assessment, for example using satellite data, which would allow for the true cumulative impact of spills to be understood. Some respondents also asked for new

⁵⁷ [MSPACE: Marine Spatial Planning Addressing Climate Effects - Plymouth Marine Laboratory](#)

criteria and indicators for chronic oil pollution and other spills and to use licensed discharge information to inform our understanding of routine and regular smaller oil pollution incidents from the offshore oil and gas industry.

Government view

All oil spills are considered in the UKMS assessment, which are reflected in Table 1 of the Thematic Assessment⁵⁸. The UKMS assessment uses numbers of oil spills above one tonne as a proxy for 'significant.' We do not agree that the oil spills represent "chronic pollution" but are instead acute pollution events.

Oil, at very low concentrations, is permitted to be discharged with produced water from offshore installations as part of routine production operations. The UK government continues to work with industry to improve their performance and further reduce the potential for oil pollution. Appropriate risk-based approaches are currently adopted both in application of Best Available Technique (BAT) to minimise permitted discharges, OSPAR Risk Based Assessment (RBA) to assess the environmental impact of those permitted discharges, and As Low As Reasonably Practicable (ALARP) / As Far As Reasonably Practicable (AFARP) approaches to prevent / mitigate spills, particularly the larger ones.

The monitoring of chronic releases from the offshore industry and shipping is not comprehensive, reliable or consistent enough to provide data for a robust indicator. Monitoring of hydrocarbons/ polycyclic aromatic hydrocarbons (PAH) levels in sediments and biota are considered a proxy for oil-based pollution entering the marine environment and may therefore be a better measure of 'chronic' pollution sources.

Satellite imagery would identify oil detections, occasionally with some false positives, but it won't adequately quantify the amount (particularly in the case of small spills), nor distinguish between permitted discharges and accidental spills. Annual data on oil and chemical spills from offshore oil & gas installations will be used in future assessments, including cumulative assessment⁵⁹.

Issues Raised: Heavy metal pollution policies

Analysis

One stakeholder said that more work is needed to understand the impacts of heavy metals on marine species, with a particular focus on intertidal species such as periwinkles, as these can be subjected to hand-gathering. They asked for further regulations and policies

⁵⁸ [Contaminants - Marine online assessment tool](#)

⁵⁹ <https://itportal.energysecurity.gov.uk/irs/publications/pon1>

to aid the removal of heavy metals, and for more monitoring to assess the source of heavy metal pollution.

Government view

The presence of heavy metals in sediments is a legacy of the past. Removing them completely from sediments is prohibitively costly and technically very difficult. This is why we apply an exception for achieving GES for this indicator. We reference the Food Standards Agency (FSA) and Food Standards Scotland (FSS)'s monitoring of chemicals associated with wild shellfish stocks in Descriptor D9 below.

Issues Raised: Support for new indicators

Analysis

There is general support for proposed changes to overarching GES criteria, targets, and indicators. This is especially the case for per- and polyfluoroalkyl substances (PFAS), where there is support for general PFAS monitoring and alignment with OSPAR. Similarly, there is strong support for improved and regular monitoring of contaminants in marine mammals, both at UKMS and OSPAR level. Some respondents asked that this assessment pivot toward assessing emerging 'chemicals of concern' as opposed to the current focus on legacy chemicals.

Government view

Cefas collect and analyse PFAS in biota in England, with further ad-hoc data collected by the EA. The Scottish Environment Protection Agency (SEPA) analyse PFAS in freshwater and FSS consider PFAS in their shellfish monitoring. We note general support for new indicators and will take this forward, and ensure alignment with OSPAR, where PFAS indicators are still under development. Similarly, we have data for contaminants in marine mammals from CSIP and the Scottish Marine Animals Strandings Scheme (SMASS), which has yet to be adopted as a Common Indicator by OSPAR due to lack of consistent data across the other Contracting Parties.

Changes to Descriptor 8: Contaminants in the updated Marine Strategy Part One resulting from the consultation

The consultation has proved extremely insightful in highlighting the priorities of stakeholders regarding Contaminants (D8). It is important to note that the status of this Descriptor has changed because the assessments are more rigorous, and not because of a change in actual concentrations of contaminants in our seas and marine sediments. We will ensure our assessments of D8 remain aligned with best practice and international standards.

We have flagged relevant activities in the above responses, but the issues raised do not require significant changes to the targets, indicators and operational objectives presented with the Thematic Assessment on MOAT⁶⁰ at this time.

4.12 Contaminants in Seafood (Descriptor D9)

Issues Raised: Data gap for finfish needs resolving

Analysis

Respondents felt the assessment was honest about the lack of finfish data for this Descriptor, but that this data gap means that GES for contaminants in seafood cannot be effectively measured. There is a strong view that this data gap must be rectified for the next UKMS assessment, as sources of contamination in seafood may be being missed and that this has consequences for FMPs.

Government view

We acknowledge the need to close this evidence gap. The FSA published findings from their ad-hoc survey of chemical contaminants in wild caught fish, crustaceans and cephalopods in 2022-23⁶¹ but the data were outside the 2024 assessment framework and were intended for horizon-scanning purposes only. The FSA are currently undertaking another, small survey for 2025-26. While the data will be published, and can be included in future UKMS assessments, the surveys are designed for food safety purposes to check compliance with legislation and for horizon scanning purposes.

FSS has carried out sampling activity on fishery products in 2021/22 testing for heavy metals, dioxins and Polychlorinated Biphenyls (PCBs), in 2022/23 testing for heavy metals and in 2024/25 testing for dioxins, PCBs and PFAS. This sampling is undertaken for food safety and compliance purposes. Further options for future sampling remain under consideration and review. Whilst FSS carries out sampling to meet legal requirements in relation to food safety and hygiene, further sampling for chemical contaminants is undertaken by the Marine Directorate of Scottish Government and by EPA.

The FSA will keep new and emerging chemical contaminants under review given the available data and evidence. One example of this is PFAS, which was incorporated into our surveys for 2022-23 and 2025-26. These surveys provide a snapshot of contaminants

⁶⁰ [Contaminants - Marine online assessment tool](#)

⁶¹ <https://science.food.gov.uk/article/127617-contaminants-monitoring-programme-for-wild-caught-fish-crustaceans-and-cephalopods>

in a small number of fish, crustaceans and cephalopods landed in England and Wales. England and Wales may undertake further surveys of this kind, if considered appropriate.

Issues Raised: Monitor a wider selection of shellfish

Analysis

Whilst shellfish were monitored for D9, there are significant gaps in the data set. This has made some respondents question the conclusion that GES is 'met' for shellfish. They said that coverage of monitoring could be improved by testing shellfish from within designated shellfish waters even where no commercial harvesting is currently taking place. This is especially important if these waters are currently closed for harvesting due to contamination. They also asked for testing of wild shellfish from in and around harvesting areas using same assessment process as for commercial stock.

Government view

We acknowledge the need to fill this evidence gap and note that the FSA carries out all monitoring of shellfish for English, Welsh and Northern Irish waters. This issue was also raised for Descriptor D8, associated with the hand-gathering of shellfish such as periwinkle. FSA Shellfish monitoring is primarily carried out under food hygiene regulations for monitoring e-coli. Local Authorities also carry out official control sampling in areas which are classified for shellfish harvesting. In addition, the FSA monitor chemical contaminants in shellfish in classified production areas, and some additional areas designated as shellfish beds by Defra. Live bivalve molluscs (LBMs) are monitored for chemical contaminants as part of official controls under food hygiene legislation. Samples are taken from classified production areas and tested against food safety criteria for heavy metals, PAHs, and dioxins including dioxin-like PCBs. Monitoring is limited to LBMs intended for human consumption. There is also monitoring of closed beds where commercial activity is expected to continue, and classification needs to be maintained. As FSA shellfish monitoring is restricted to shellfish as food, this monitoring programme would not cover wild shellfish.

FSS undertakes a monitoring programme for chemical contaminants in shellfish as legally required by the Official Controls Regulations, to ensure food safety and hygiene standards are maintained. In compliance with the Regulations, this monitoring is risk based and designed taking account of classified area results as well as information regarding known sources of potential pollution as well as historical pollution events. As well as targeted sampling, all newly classified areas are routinely sampled. Testing covers legal requirements such as heavy metals for all areas as well as organic contaminants for selected areas. Data for PFAS and inorganic arsenic has also been gathered although not a legal requirement at present in Great Britain.

Whilst FSS carries out sampling to meet legal requirements in relation to food safety and hygiene, further sampling for chemical contaminants is undertaken by the Marine Directorate of Scottish Government and by the Scottish Environment Protection Agency.

Changes to Descriptor 9: Contaminants in seafood in the updated Marine Strategy Part One resulting from the consultation

The consultation has proved extremely insightful in highlighting the priorities of stakeholders regarding Contaminants (D9) in Seafood. We have flagged up some relevant activities in the above responses, but the issues raised do not require significant changes to the targets, indicators and operational objectives presented with the Thematic Assessment on MOAT⁶² at this time.

4.13 Marine Litter (Descriptor D10)

Issues Raised: Disagree GES is 'met' for beach litter

Analysis

Several respondents disagreed with our assessment that the Beach Litter indicator has achieved GES (not the Descriptor as a whole), saying that this is misleadingly positive and does not align with global trends. They said that confidence in the assessments is low because too few beaches are sampled across the UK to make a representative sample size. Several responses recommended adding more beaches to the assessment, including at least one Scottish island, along with a request for any monitoring to closely follow the OSPAR beach litter monitoring protocol.

Government view

We accept that the number and variety of beaches sampled in Scotland needs to increase. Official UK beach litter monitoring already follows OSPAR protocols. The UKMS data used in this assessment reflected that used for the OSPAR QSR 2023, including the number of UK beaches sampled. The subset of Beachwatch data used for the UKMS is a representative sample where OSPAR protocols are followed by trained volunteers and the same beaches are sampled quarterly. Not all MCS Beachwatch data follows the same level of scrutiny or regular sampling. To include such data in the future, we would need to compare the outputs of all Beachwatch data to the subset of robust data used to determine how aligned the outputs are.

It is important to note that since 2019 we have worked with countries in OSPAR to agree a threshold value for beach litter (20 litter items per 100m of coastline) and we agreed quantitative reduction targets in the North East Atlantic Environment Strategy (by 2025

⁶² [Contaminants in seafood - Marine online assessment tool](#)

OSPAR will reduce by at least 50% the prevalence of the most commonly found single-use plastic items and of maritime-related plastic items on beaches in order to contribute to the achievement of relevant regional and EU threshold values, and by at least 75% by 2030).

Beach litter monitoring data has informed waste and Circular Economy policies, including bans on single-use plastics, and the development of Deposit Return Schemes.

Issues Raised: Marine litter pathways and standardising approaches

Analysis

Some respondents said that opportunities greater collaboration across the four nations are needed to identify sources of marine litter and plastic pollution entering all waterways, with a specific focus on litter sources and pathways. Some respondents said the primary issue for this descriptor is to address the presence of marine litter on the seabed. They said that an indicator for seafloor litter within sediments would provide an understanding of the levels of smaller, more bioavailable marine litter. They pointed out that current targets only assess litter collected in trawl nets, but underwater camera footage could be used for wider marine litter observations. They said that, because this issue is devolved, there needs to be collective action and for quantitative data to be standardised to provide better comparisons about work being done across the devolved governments of Scotland and Wales, and DAERA.

Government view

The UK Government has taken action to prevent and reduce marine litter, including by reducing plastic waste at source. Our marine litter monitoring data has informed single-use plastics policies, including bans and restrictions, and we are working domestically and internationally to take action on plastic pollution, including from fishing and aquaculture as fishing gear is one of the most harmful types of marine litter.

Identifying sources of marine litter is challenging but work has been done to improve our understanding. For example, Cefas have conducted further analysis of existing seafloor litter data by examining photographs and descriptions of litter items taken from surveys in the North Sea (2016–2020) and the Celtic Seas (2018–2022) to identify fisheries-related items. The UK Government works with the DGs of Scotland and Wales and DAERA to monitor marine litter in line with the UK Marine Strategy indicators.

Issues Raised: Routine microplastics monitoring and granularity of assessments

Analysis

Several respondents requested the UKMS includes the routine, standardised monitoring of microplastics, which is needed to assess litter that may enter the food chain, and should

cover all 'pathways and sinks.' Respondents also request that the UKMS establish a standard definition as to what constitutes microplastics. Further suggestions include that microplastic thresholds should be established as part of new indicators, aligned with those described under the Marine Strategy Framework Directive for macro-plastics (20 litter items per 100 meters of coastline for beach litter). Respondents also said robust microplastics monitoring should include samples from terrestrial, inland water bodies, transitional, coastal and marine waters, sediments (beach and offshore) and biota (including seafood). Other respondents said that the assessments generally lack granularity on marine industry sources of plastic pollution, and ask that monitoring and assessment of plastics on islands is included in future assessments.

Government view

We know microplastics are prevalent in the marine environment and will increase for the foreseeable future even if plastic inputs reduce as existing plastic litter will continue to break down. Technical experts from Cefas have been leading the development of a new indicator for micro-litter (including microplastics) in seafloor sediments. The UK Marine Strategy has yet to adopt this indicator because further analysis is required to determine its cost-effectiveness and how it can influence UK policy.

Cefas is also exploring which fish and bivalve species could be used as potential sentinel species for microplastics. Dab, as a demersal fish, sardines and anchovies, as small pelagic fishes, and mussels, as suspension feeders, are being collected to identify spatial variation in microplastic abundance and the impact of different ecological niches on ingestion. Additional research is planned for whiting and mackerel to examine food web interactions with microplastics, as well as an investigation into abundance in cockles. There is no current monitoring of microplastics in seafood and no suitable analytical method for doing so but the FSA and FSS are following this issue closely.

The Scottish Government is not undertaking monitoring of microplastics in seafood but it is developing a method for routine monitoring of microplastics in marine sediment, which is the proposed OSPAR common indicator for microplastics. Monitoring of microplastics in surface water also occurs in coastal and offshore Scottish waters.

Issues Raised: Development of national marine litter strategies

Analysis

Several respondents recommended the development of a UK marine litter strategy and / or that each UK nation should have a national marine litter strategy, as Scotland currently does. They also asked for consistency and alignment between these litter strategies and associated policy matters across the UK where possible.

Government view

Marine litter is a global and transboundary issue, which is why the UK has also been vocal advocates for an ambitious and effective international treaty on plastic pollution. There are

currently no plans for development of a UK marine litter strategy. The UK implements the OSPAR RAP on Marine Litter, leading a number of actions, and OSPAR measures agreed to help reduce the sources of and impacts of litter on the marine environment. The UK, as a signatory to OSPAR, must ensure any legally binding OSPAR measures are implemented through domestic management measures and that non-binding measures are considered. Defra works with colleagues in the Maritime and Coastguard Agency (MCA) and Department for Transport (DfT), to support work at the International Maritime Organisation (IMO) on reducing marine plastic litter from shipping.

Changes to Descriptor 10: Marine Litter in the updated Marine Strategy Part One resulting from the consultation

The consultation has proved extremely insightful in highlighting the priorities of stakeholders regarding Marine Litter (D10). We have flagged up some relevant activities in the above responses, but the issues raised do not require significant changes to the targets, indicators and operational objectives presented with the Thematic Assessment on MOAT⁶³ at this time.

It is important to note that since 2019 we have worked with countries in OSPAR to agree a threshold value for beach litter (20 litter items per 100m of coastline) and we agreed quantitative reduction targets in the North East Atlantic Environment Strategy (by 2025 OSPAR will reduce by at least 50% the prevalence of the most commonly found single-use plastic items and of maritime-related plastic items on beaches in order to contribute to the achievement of relevant regional and EU threshold values, and by at least 75% by 2030).

Our marine litter monitoring data has informed single-use plastics policies, including bans and restrictions, and we are working domestically and internationally to take action on plastic pollution, including from fishing and aquaculture as fishing gear is one of the most harmful types of marine litter.

4.14 Underwater Noise (Descriptor D11)

Issues Raised: The need for threshold values to support assessments.

Analysis

⁶³ [Marine litter - Marine online assessment tool](#)

One respondent appreciated the simplified explanation and naming of indicators but there were several comments about the need to define thresholds and values to enable more accurate assessment of those indicators. Some ENGOs offered to contribute evidence to support the development of thresholds, which they say need to be defined across all four nations and are needed to implement management measures for Sacs where underwater noise regulation will have a direct impact in improving the condition status of protected species.

Government view

We will work nationally and with other countries, particularly in the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR) Commission, to establish threshold values for levels of impulsive and continuous anthropogenic sound.

We will continue to work collaboratively with the IMO to ensure that continuous underwater noise from shipping is robustly controlled at a global level. The UK has also reaffirmed its commitment to addressing underwater noise by agreeing that OSPAR adopt the RAP for Underwater Noise. The Plan introduces actions to address noise from a range of activities. Through a series of actions, the RAP-Noise provides a framework for OSPAR and its contracting parties to tackle pressures from both impulsive and continuous noise over the period of 2025-2035.

The UK also co-led work through OSPAR to develop regional indicators of both impulsive and continuous anthropogenic sound. Work on developing regional underwater noise indicator thresholds is underway for cetaceans. We will consider how to use other sources of evidence to support this assessment as part of the update to UKMS Part Two.

Issues Raised: Significant omissions of noise sources in assessment

Analysis

Respondents felt significant sources of underwater noise were omitted from this assessment. Examples given include pre-installation surveys for offshore renewables; small scale piling in the oil and gas industry; acoustic deterrent devices used in aquaculture and as mitigation in offshore developments; military related noise. These gaps are considered to be due to the reliance on the Marine Noise Register (MNR) for assessment data. The gap in defence related noise was raised in more detail by certain stakeholders due to the potential impacts on cetaceans.

Government view

The UK has reaffirmed its commitment to addressing underwater noise by agreeing that OSPAR adopt the RAP for Underwater Noise. The Plan introduces actions to address noise from a range of activities. Through a series of actions, the RAP-Noise provides a

framework for OSPAR and its contracting parties to tackle pressures from both impulsive and continuous noise over the period of 2025-2035.

The MNR captures the majority of impulsive noise events in UK seas. Entering data from acoustic deterrent devices used as mitigation in offshore developments into the MNR remains voluntary, including the high-resolution geophysical processes used in pre-installation surveys. However, we have addressed the issue of data gaps associated with acoustic deterrent devices (ADD) at fish farms by ensuring that, where used, any devices that produce impulsive noise provide data to the MNR.

A Code of Practice on fish farms interactions with marine mammals was published in 2021 which sets out mandatory standards with which aquaculture production businesses are required to comply, including in relation to ADDs. Where a fish farm plans to deploy an ADD, they must consult the Marine Directorate in Scotland to obtain the relevant consents or demonstrate that their planned use will not harm marine mammals.

Defra recently consulted on proposals for activity noise data to be submitted to the MNR for geophysical surveys that include sub-bottom profiling equipment and for seismic airguns to require a marine licence due to their impact on marine life. For military related noise, the Joint Nature Conservation Committee (JNCC) collate declassified data on the use of military sonar and controlled ordinance explosions. We will continue to develop the MNR to enable better planning, assessing, and managing of licensed activities in UK waters in accordance with agreed threshold values.

The Scottish Government funded passive acoustic monitoring of underwater noise under the Scottish Passive Acoustic Network (SPAN) project where underwater noise monitoring is ongoing at 29 locations around Scotland since 2024.

Issues Raised: Suggestions for additional assessment

Analysis

Several respondents suggested new sources of evidence or ways to measure underwater noise. For example, it was suggested that there is a role for passive sampling which would enable capture of a more accurate picture of continuous underwater noise levels. There were specific suggestions on how shipping noise is monitored and assessed (for example, that monitoring and assessment of shipping noise be split by frequency to enable assessment of the impacts of such noise on different species). Several respondents suggested a matrix approach to measuring and managing underwater shipping noise would be useful, along with a requirement for a cumulative effects assessment for underwater noise to ensure the true pressure on marine species is understood.

Also, several respondents highlight the need to consider other inputs of energy in D11, including that of light and EMF. In terms of monitoring light pollution, reference was made to using existing globally recognised methods.

Government view

Passive sampling is already happening for underwater continuous noise. Our priority is to define threshold values from which we can consider which management actions might be most effective in meeting GES. For example, underwater noise has been monitored at 10 sites off the east coast of Scotland since 2013 and at an additional 18 sites around Scotland since 2023 as part of the SPAN. As reported in the indicator assessment, three measurement sites were used to validate the modelling predictions used as the basis of the indicator. The continuous noise indicator splits modelling into different frequency bands (the broadband metrics used in the assessment are computed from the individual frequency bands).

Whilst there are no adopted indicators that we can use to assess the impacts of light and EMF on marine and coastal environments at this time, Defra leads on and coordinates policy relating to light pollution across government⁶⁴. There is also a strengthened biodiversity duty for public authorities arising from the Environment Act 2020 in England. Under this duty, public authorities (including local councils) must consider actions to conserve and enhance biodiversity, which includes light. The Welsh Government has produced guidance to plan for the conservation and enhancement of dark skies in Wales⁶⁵. Other research is being conducted to further inform how best to limit the impacts from artificial lighting at night (ALAN) on our marine environment⁶⁶.

Issues Raised: Further policy and management needed

Analysis

There was positive response across respondents to the recent changes in underwater noise related policy but there remains a desire for further progress. This is especially the case for those sectors not covered by recent changes in policy and for where there is no mandatory reporting to the MNR. Overall, there were requests for alignment in noise policy across all sectors and for new policy to build on proposals to introduce noise limits in line with other European nations. There was general support for the development of noise exposure indicators which could be used in UKMS assessments e.g., for marine mammals. Many respondents felt that agreeing thresholds and targets for underwater noise is a priority for D11 and that underwater noise thresholds need relating to the onset of biological effects across a range of organisms.

Government view

⁶⁴ [Artificial light in the environment: policy update](#)

⁶⁵ [Planning for the Conservation and Enhancement of Dark Skies in Wales](#)

⁶⁶ [Aquaplan Data Portal](#)

We agree that it is vital that biodiversity is protected whilst meeting the important commitments to achieving Net Zero and supporting thriving industry. Defra plans⁶⁷, where the UK Government committed to considering noise threshold values for both impulsive and continuous noise sources across UK waters. Defra's Offshore Wind Enabling Actions Programme (OWEAP), the Department for Energy Security and Net Zero (DESNZ) Offshore Energy Strategic Environmental Programme, the Scottish Government's ScotMER Programme, the Crown Estate's Offshore Wind Evidence and Change Programme and the Offshore Renewables Joint Industry Programme (ORJIP) have funded several projects that have helped improve our knowledge of the impacts of anthropogenic sound on marine animals. The UK government encourages all marine industries to take all necessary steps to reduce their noise. We believe that setting thresholds for underwater noise will effectively help build coherence between this Descriptor and D1 for marine mammals.

Changes to Descriptor 11: Underwater Noise in the updated Marine Strategy Part One resulting from the consultation

The consultation has proved extremely insightful in highlighting the priorities of stakeholders regarding Underwater Noise (D11). We have flagged up some relevant activities in the above responses, but the issues raised do not require significant changes to the targets, indicators and operational objectives presented with the Thematic Assessment on MOAT⁶⁸ at this time.

Defra will publish the outcome of the consultation on proposals for activity noise data to be submitted to the MNR for geophysical surveys referenced above in due course.

5. Next steps - Changes to our approach

The UK, devolved governments of Scotland and Wales, and DAERA are committed to improving the outcomes from, and impact of, the UK Marine Strategy. We have highlighted what we are either currently doing or are planning to do in response to the issues raised. We will publish the updated UK Marine Strategy Part One early in 2026.

In response, we expect to work with stakeholders to improve the UKMS framework where possible and relevant to do so within the terms of the Marine Strategy Regulations 2010 and within current capacity across the respective governments and all associated arms-

⁶⁷ [Reducing marine noise - GOV.UK](#)

⁶⁸ [Underwater noise - Marine online assessment tool](#)

length bodies (ALBs). We will approach stakeholders to contribute to these discussions and this work in due course.

OSPAR remains the regional coordination mechanism for marine environmental protection across the North-East Atlantic, including both the EU and UK. The EU has committed through its Ocean Pact to reforming the MSFD. The MSFD explicitly requires coordination through OSPAR structures so reforms will likely be transmitted into regional coordination work inside OSPAR, where the UK participates equally with EU states. The UK will need to consider what reforms to the MSFD mean for the implementation of its MSR2010 and will work at OSPAR to ensure that any changes to OSPAR ways of working as a result of MSFD reforms also reflect the UK needs and the needs of our marine environment where relevant and subject to Ministerial consent. We will also use the OSPAR IA29 to inform and populate our next assessments and will consider using 'other data'⁶⁹ sources to support our assessments where appropriate and how we use natural capital and ecosystem service narratives and evidence in future assessments.

In addition, we are considering how to integrate climate resilience and adaptation into the UKMS framework, based on recommendations from OSPAR Contracting Parties. We are also updating the Terms of Reference used to underpin the policy and evidence governance of the UKMS to ensure that an appropriate and effective intergovernmental coordination and decision-making framework is in place.

We will review all operational objectives associated with each UKMS Descriptor (as presented on the Marine Online Assessment Tool) in full when we review and update the UK Marine Strategy Part Two.

⁶⁹ OSPAR integrate 'other assessments' to support the findings and accuracy of their Quality Status Reports (QSR). They put out a data call for 'other information' on specific topics for each assessment. This means the data are acknowledged whilst being kept separate from the government mandated data collection and evidence programmes. We would need to develop guidance to enable us to do this effectively and to ensure data submitted is of sufficient quality.

Annex A: List of respondents

A total of **30 responses** to the consultation were received (21 responses through the online Citizen Space platform, and 9 email responses). We have listed the stakeholder organisations below.

Angling Trust
Anglo Northern Ireland Fish Producers Organisation
Blue Marine Foundation
Clarke Howell Marine Consulting
Environmental Standards Scotland
Historic England
Howell Marine Consulting
Scottish Environment Link
Keep Scotland Beautiful
Loughs Agency
Marine Conservation Society
National Federation of Fishermen's Organisations (NFFO)
North Atlantic Holdings
North Sea Wildlife Trusts
Northern Ireland Fish Producers
Northern Ireland Fishermen's Federation
Northern Ireland Marine Task Force
Oceana
Office for Environmental Protection (OEP)
Open Seas
Plymouth Marine Laboratory
Port of London Authority
Renewable UK
Royal Society for the Protection of Birds (RSPB)
Scottish Fisherman Federation
Scottish Islands Federation
Scottish Water
The Wildlife Trusts
Wildlife and Countryside Link
WWF
Your Angling Voice

Annex B: Acronyms

ADD-acoustic deterrent devices

AFARP-As Far as Reasonably Practicable

AFBI-Agri-Food & Biosciences Institute

ALAN-Artificial Lighting at Night

ALARP-As Low as Reasonably Practicable

ALBs-Arms-Length Bodies

ASCOBANS-Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas

BAT-Best Available Technique

BoCC-Birds of Conservation Concern

BMI-Bycatch Mitigation Initiative

BMP-Bycatch Monitoring Programme

Cefas-Centre for Environment, Fisheries and Aquaculture Science

CIAs-Cumulative Impact Assessments

COBAM-Coordination of Biodiversity Monitoring and Assessment

COWSC-Collaboration on Offshore Wind Strategic Compensation

CPs-Contracting Parties

CSIP-Cetacean Strandings Investigation Programme

DESNZ-Department for Energy Security and Net Zero

DIN-Dissolved Inorganic Nitrogen

DIP-Dissolved Inorganic Phosphorus

EA-Environment Agency

EFH-Essential Fish Habitat

EIA-Environmental Impact Assessments

EIHA-Environmental Impacts of Human Activities Committee

EIP-Environmental Improvement Plan

ENGOS-Environmental Non-Governmental Organisations

EMF-Electromagnetic fields

EOR-Environmental Outcome Reports

ESCaRP-English Seabird Conservation and Recovery Pathway report

FMPs-Fisheries Management Plans

FSA-Food Standards Agency

FSS-Food Standards Scotland

GBNNS-Great Britain Non-Native Species Secretariat

GNSBI-Greater North Sea Basin Initiative

HLMOs-High Level Marine Objectives

HPAI-Highly Pathogenic Avian Influenza

HPMAs-Highly Protected Marine Areas

HRA-Habitats Regulation Assessment

IA29-OSPAR Intermediate Assessments 2029 exercise

ICES-International Council for the Exploration of the Sea

IFCA-Inshore Fisheries and Conservation Authorities

IMO-International Maritime Organisation

IMP-implementation plan

IWC-International Whaling Commission

JNCC-Joint Nature Conservation Committee

LFI-Proportion of Large Fish

LMBs-Live bivalve molluscs

mNCEA-Marine Natural Capital and Ecosystem Assessment

MBA-Marine Biological Association

MCA-Maritime and Coastguard Agency

MCAA-Marine and Coastal Access Act 2009

MCCIP-Marine Climate Change Impacts Partnership

MCZ-Marine Conservation Zone

MEDIN-Marine Environmental Data and Information Network

MMO-Marine Management Organisation

MMSS-Marine Mammal Scientific Support

mNCEA-Marine Natural Capital and Ecosystem Assessment

MNR-Marine Noise Register

MOAT-Marine Online Assessment Tool

MONI-Mapping Offshore Northern Ireland

MPS-Marine Policy Statement

MSFD-EU Marine Strategy Framework Directive

MSPri-Marine Spatial Prioritisation

MSR-Marine Strategy Regulations 2010

MSY-Maximum Sustainable Yield

NAP-National Adaptation Programme

NE-Natural England

NEAES-North-East Atlantic Environment Strategy

NIS-Non-Indigenous Species

NMP2-Scottish National Marine Plan

NRW-Natural Resources Wales

ONS-Office for National Statistics

OOAO-one out all out

OREAP-Offshore Renewable Energy Action Plan

OSPAR-Oslo Paris Convention for the Protection of the Marine Environment of the North-East Atlantic

OWEIP-Offshore Wind Environmental Improvement Package

OWES-Offshore Wind Environmental Standards

PAH-polycyclic aromatic hydrocarbons

PCBs-Polychlorinated Biphenyls

PFAS-polyfluoroalkyl substances

POM-UKMS Part Three Programme of Measures

QSR-Quality Status Report (2023)

RAP-Regional Action Plan

RBA-Risk Based Assessment

RID-Riverine Inputs and Direct Discharge Programme

ROVs-Remotely Operated Vehicles

SACs-Special Areas of Conservation

SCANS-Small Cetaceans in European Atlantic Waters

SCOS-Special Committee on Seals

ScotMER-Scottish Marine Energy Research Programme

SCUAS-Seabird Conservation UK Advisory Science

SEA-Scottish Entanglement Alliance

SEPA Scottish Environment Protection Agency

SMART-Smart, Measurable, Achievable, Relevant, Time Bound

SMASS-Scottish Marine Animal Strandings Scheme

SMP-Seabird Monitoring Programme

SMP-OWE-Sectoral Marine Plan for Offshore Wind Energy

SMRU-Sea Mammal Research Unit

SNCBs-Statutory Nature Conservation Bodies

SPA-Special Protection Areas

SPAN-Scottish Passive Acoustic Network

SSB-Spawning Stock Biomass

TCA-EU-UK Trade and Cooperation Agreement

TCE-The Crown Estate

T&D-Threatened and/or Declining

UKBCEP-UK Blue Carbon Evidence Partnership

UKMS-UK Marine Strategy

UKMS 1- Marine Strategy Part One: UK Updated Assessment and Good Environmental Status

UKMS 2-UKMS Part Two: Monitoring Programme

UXO-Unexploded Ordnance

ValMAS-Valuing Marine Structures

WER-Water Environment (Water Framework Directive) Regulations 2017

WG COCOA-Working Group on Changing Ocean Climate and Ocean Acidification

WFR- Water Framework Regulation assessments