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An Roinn

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an' Kintra Matthers



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for Environment,
Food & Rural Affairs



Llywodraeth Cymru
Welsh Government

Proposed Irish Sea Pelagic (herring) Fisheries Management Plan

Strategic Environmental Assessment Environmental Report

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Any enquiries regarding this publication should be sent to us at:

Fmps@daera-ni.gov.uk

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Non-technical Summary

The draft Irish Sea Pelagic (herring) Fisheries Management Plan (FMP) has been prepared to meet the requirements of [the Fisheries Act 2020](#). It sets out the policy goals and proposed actions the relevant fisheries policy authorities, Department of Agriculture, Environment and Rural Affairs (DAERA), the Department for Environment, Food and Rural Affairs (Defra) and the Welsh Government, will use to manage herring (*Clupea harengus*) fishing activity, so stocks are harvested within sustainable levels. Alongside these actions, the draft Irish Sea Pelagic FMP also sets out management to help support wider social, economic and environmental aspects of the fishery.

This Environmental Report (ER) has been produced in accordance with the Environmental Assessment of Plans and Programmes Regulations 2004 (SEA Regulations 2004). The following issues (from Schedule 2, paragraph 6 of the SEA Regulations 2004) were scoped into the assessment:

- Biodiversity, fauna and flora
- Geology and sediments (soil)
- Water
- Climatic factors
- Cultural heritage

This assessment focuses on how the policy goals and actions in the draft Irish Sea Pelagic FMP are likely to give rise to both significant positive and negative environmental effects. The findings of this assessment have been used to inform the development of the FMP.

The assessment was conducted against a baseline that primarily used existing evidence on the state of the marine environment set out in the [updated UK Marine Strategy \(UK MS\) Part 1](#), published in 2019. Additional sources of evidence were used to establish the status of the environment in relation to issues not covered by the UK Marine Strategy (UK MS), such as climatic factors and cultural heritage. The historical impact of fishing activity on the marine environment has been considered part of the baseline. Our assessment used the best available evidence to reach a suitable judgement on the environmental effects of the draft Irish Sea Pelagic FMP.

This report sets out those plans, programmes and environmental protection objectives, both international and domestic that the fisheries policy authorities consider relevant to the draft Irish Sea Pelagic FMP.

This report considers and acknowledges the existing environmental effects of herring fishing using pelagic trawls, drift nets, and bottom set gillnets on those issues scoped into this assessment, in relation to Marine Protected Areas (MPAs), the UK MS descriptors and the wider environment. The potential positive and negative

environmental effects of the draft Irish Sea Pelagic FMP's policy goals and proposed actions alone and in-combination have also been assessed.

This Strategic Environmental Assessment (SEA) has concluded that beyond the direct impact on targeted stocks, the fishery has an impact on the wider marine environment primarily through bycatch of unwanted / protected species (in passive nets) and prey reduction, with the potential to cause seabed disturbance (from bottom contacting gears). The contribution of fishing related litter was also identified as a potential impact associated with herring fishing. The impact of herring fishing in MPAs is managed in the 0-12 nautical miles zone in Northern Ireland waters and English waters. Management in MPAs beyond the 12 nautical mile limit is in development. The contribution of herring fishing to climate change related issues and its interactions with cultural heritage, through structural damage for example, were also identified as potential impacts.

The draft Irish Sea Pelagic FMP has considered these impacts and sets out proposals to monitor, and where required, introduce mitigation to address these impacts.

The assessment of the likely negative effects did not identify any negative effects that posed a significant risk to the environment. The policy goals and actions will, where appropriate, be developed to avoid any potential negative effects identified by the assessment progress. The environmental effects of implementing the draft Irish Sea Pelagic FMP's policy goals and actions will also be monitored to identify unforeseen adverse effects at an early stage, so appropriate remedial action can be undertaken.

This assessment recommends the draft Irish Sea Pelagic FMP should consider the following additional points:

- Future iterations of the draft Irish Sea Pelagic FMP should consider how to develop the cultural heritage of each fishery
- The draft Irish Sea Pelagic FMP would benefit from providing more specific detail on national and UK programmes to reduce marine litter and how this FMP contributes to those programmes.
- The draft Irish Sea Pelagic FMP would benefit from providing more specific detail on how the FMP will interact with Marine Plans. Noting how the FMP could positively or negatively interact with this programme, would improve the in-combination assessment.

1. Introduction

Fisheries Management Plans – context and background

Marine fish stocks are a public resource, a valuable natural asset, and important components of marine ecosystems. Managing fishing activity so that we harvest our stocks within sustainable limits will ensure our fishing communities, the seafood supply chain and wider society continue to benefit from our natural assets, now and into the future.

The Fisheries Act 2020 requires the fisheries policy authorities¹ in the UK to publish Fisheries Management Plans (FMPs) as set out in the [Joint Fisheries Statement \(JFS\)](#), to manage fishing activity so the harvesting of fish stocks remains within sustainable levels.

Sustainable fisheries protect stocks and the wider environment whilst delivering social and economic benefits for present and future generations. Delivering sustainable fisheries will involve balancing the environmental, social, and economic aspects of fisheries. Both the short-term and the long-term impacts of decisions to manage fishing activity to protect stocks, the marine environment and on the fishing industry will be considered. Any short-term decisions to favour social or economic benefit should not significantly compromise the long-term health of the stocks and marine environment that underpin these societal and cultural benefits of fishing. These decisions should recognise the cultural importance of fishing through maintaining and, where possible, strengthening coastal communities and livelihoods alongside the requirement for fish stocks to reach and maintain sustainable levels.

UK fisheries policy authorities identified 43 FMPs in the JFS. A timetable for the preparation and publication of the FMPs can be found in Annex A of [the JFS](#) and summarised on Gov.UK: please read [the List of FMPs](#). Following consultation, an updated version of Annex A of the JFS was published in December 2024, introducing changes to the publication dates and technical details of several FMPs.

All FMPs must contain the information set out in [Section 6](#) of the Fisheries Act 2020. In summary, an FMP must specify the relevant authority; stock or stocks, type of fishing and geographical area to which the plan relates; the status of the stocks; policies and

¹ **Fisheries policy authorities:** As defined by section 52 of the Fisheries Act 2020, “fisheries policy authorities” means (a) the Secretary of State, (b) the Scottish Ministers, (c) the Welsh Ministers, and (d) the Northern Ireland department.

actions to harvest within sustainable limits; and the indicators to be used to monitor the effectiveness of the plan.

FMPs must specify whether there is sufficient evidence to assess a stock's Maximum Sustainable Yield (MSY). Where there is insufficient evidence, the FMP must specify policies for maintaining or increasing levels of the stock, and the steps (if any) that the relevant authority or authorities propose to take to obtain the scientific evidence necessary to enable an assessment of a stock's MSY. If no steps are proposed, the FMP will explain the reasons for that, and how the precautionary approach to fisheries management will be applied so fish are harvested within sustainable limits.

Through managing fishing activity within sustainable limits, FMPs will contribute to the fisheries objectives set out in section 1 of the Fisheries Act 2020. The scope of a FMP may be extended to consider wider fisheries management issues related to environmental, social or economic matters. How FMPs consider wider fisheries management issues will be determined at the individual FMP level, appropriate to the stock(s), fishery and geographic area within the remit of the FMP.

The Fisheries Act 2020 requires that the effectiveness of FMPs is reported every three years and that the FMPs are reviewed at least every six years. FMPs will evolve as our understanding and evidence base develops through their implementation. Some FMPs will progressively address a wider range of fisheries management issues as they evolve through an iterative approach over time.

FMPs will contain a range of policies and fisheries management measures/interventions whose detail will vary depending on the evidence available to support their implementation. Some policies and actions may only indicate future action and will develop over time as the plan's evidence progresses through each iteration.

FMPs will adopt an ecosystem-based approach to fisheries management to help deliver environmental, social, and economic benefits beyond those accrued from just achieving the sustainable harvesting of stocks. The policies and actions proposed by an FMP will apply to all vessels (UK and non-UK vessels) fishing in the area covered by the plan.

Delivering Sustainable Management of Fisheries and FMPs

Fisheries rely on the ecosystems in which they operate to support healthy stocks. These ecosystems can be compromised by human-induced pressures, including pollution, marine litter and unsustainable exploitation of marine resources. This pressure includes the impact of fish population levels on the processes and functioning of the wider ecosystem - for example, the removal of prey species impacts the status of top predators.

Long-term, sustainable, and profitable fisheries require active management to avoid, reduce or mitigate any adverse impacts of fishing activity on ecosystem functioning, ecosystem resilience, or environmental threats such as climate change.

Available fishery data and advice will help determine the targets and catch limits applied to each stock. Where possible, these limits would include the MSY for data-rich stocks where biomass fluctuations can be tracked. Alternative proxies for harvest limits, the precautionary approach, or a combination of both are required for more data-limited stocks, where it is only possible to detect biomass fluctuations.

Not all stocks currently have sufficient evidence to establish MSY, reference points and limits. It is not scientifically feasible or economically viable to collect such evidence for some species. In these cases, FMPs must include the steps, or reasons for not taking steps, national fisheries authorities will take to ensure stocks are harvested within sustainable limits.

FMPs will recognise the importance of the sustainable use and conservation of our marine natural assets and the ecosystem services they provide when setting out policies to manage fishing activity. FMPs will make use of the best available scientific advice, be subject to scientific evaluation, and consider the environmental risks associated with the fishing activity. The plans will use a risk-based approach to identifying appropriate and proportionate mitigation for its environmental impact.

FMPs will contribute to achieving Good Environmental Status (GES) under the UK Marine Strategy (UK MS). In addition to improving or maintaining the status of commercial stocks, plans can include actions focused on reducing the risks and/or pressures from fishing activity to other ecosystem components that may prevent achieving GES.

Managing fishing activity within sustainable limits through FMPs will directly contribute to securing the continued availability of seafood products as an important food source within the UK food supply chain.

Scope of the FMP

The draft Irish Sea Pelagic FMP applies to herring (*Clupea harengus*) fisheries in Northern Ireland², Welsh³, and English waters⁴, covering inshore and offshore areas where fishing activity for herring takes place. The herring fisheries covered by this FMP

² Northern Ireland waters refer to the Northern Ireland inshore and Northern Ireland offshore regions as set out in Section 322 of the [Marine and Coastal Access Act 2009](#).

³ Welsh waters refer to the Welsh inshore and Welsh offshore regions as set out in Section 322 of the [Marine and Coastal Access Act 2009](#).

⁴ English waters refer to the English inshore and English offshore regions as set out in Section 322 of the [Marine and Coastal Access Act 2009](#).

occur in International Council for the Exploration of the Sea (ICES) area 7a North of 52°30'N (Irish Sea).

Draft Irish Sea Pelagic FMP Policy Goals and Actions

The vision for this FMP is that the herring fisheries in UK waters of the Irish Sea are managed sustainably, to help ensure that stocks are maintained above levels capable of producing MSY.

The policy goals and actions set out in this FMP suggest how this could be achieved in a way that is consistent with, and supportive of, the wider achievement of the fisheries objectives set out in the 2020 Act, and the policies contained within the JFS.

To ensure effective management of herring fisheries within the FMP area of the Irish Sea, the FMP identifies 5 policy goals focussed on domestic and international management priorities (Table 1). These policy goals are subject to the consideration of the consultation and will be prioritised appropriately to ensure realistic and measurable outputs. They were drafted to meet the requirements of section 6(3) of the 2020 Act (goals 1 and 2) and policies set out in the Joint Fisheries Statement (goals 3, 4 and 5). For each goal, the plan sets out:

- a rationale;
- ongoing, short and longer-term actions;
- how the actions support delivery of the fisheries objectives.

Table 1. The draft Irish Sea Pelagic FMP policy goals.

Policy goal theme	Policy goal
Sustainable fisheries	Harvest Irish Sea herring stocks sustainable with biomasses maintained above the level capable of producing MSY.
Evidence	Use the best available scientific evidence to support management decisions relating to the setting of sustainable fishing opportunities.
Management approach	Deliver wider sustainable management by taking steps to minimise the impact of Irish Sea herring fisheries on the marine ecosystem.
Social and economic	Support the fishing industry to deliver socio-economic and cultural benefits for rural and coastal communities.
Climate change	Minimise the impact of fish activities climate change and support the fishing industry to adapt to the impacts of climate change.

The draft FMP's goals and proposed actions may change following the public consultation. Any changes will be subject to assessment and reflected in the final ER.

Goal 1: Harvest Irish Sea herring sustainably with biomass restored and maintained above the level capable of producing MSY.

Rationale:

The primary aim of FMPs is to set out policies designed to restore or maintain fish stocks to sustainable levels or contribute to the restoration or maintenance at sustainable levels. This is in line with section 6(3)(a) of the Act. As part of this, the role of fisheries managers is to help ensure stocks are harvested sustainably, to protect the long-term viability of the stocks and the fisheries that prosecute them.

Our understanding of a stock's status will change over time, as evidence and assessments are developed and revised. This may include how the scientific advice adapts to meet developing concerns, such as the inclusion of ecosystem management requirements.

Our approach is to fish the stock sustainably and in a manner that supports rebuilding to or maintaining the stock above a level capable of producing MSY in the longer term. At the time this FMP was produced there were concerns over the assessment and status of the herring stock. Actions should support sustainable fishing in that, as per the Act, they are environmentally sustainable in the long term and managed to achieve economic, social and employment benefits and contribute to food supplies. This approach is applied in the setting of TACs.

How to maintain this:

- Continue to take an approach to TAC setting that is sustainable, informed by the best available scientific advice, and in line with an MSY approach?
- Continue to work with EU partners through international negotiations with the aim of maintaining the sustainable harvesting of the stock and appropriate access.
- Use effective fisheries management measures, consulting on and disseminating solutions as issues arise. This includes supporting and adhering to spawning ground closures, effective enforcement and supporting the development of appropriate gear technology.

Goal 2: Use the best available scientific evidence to support management decisions relating to the setting of sustainable fishing opportunities

Rationale: The assessment for Irish Sea herring last underwent an ICES benchmarking process in 2012, with the model updated in 2017. Subsequent revisions of the assessment due to errors that have been picked up have resulted in a change in the perception of the stock and the in-year reissuing of advice in both 2024 and 2025.

Despite a loss of confidence in the current ICES assessment, there remains sufficient evidence to enable the fisheries policy authorities to assess MSY.

ICES advice has increasingly highlighted the unquantifiable amount of mixing of mature herring from the Irish Sea, and Celtic Sea and other stocks. Significant work is needed to further understand the nature of the mixing in the northern Irish Sea and the management implications for adjacent stocks. Developing more comprehensive data collection for the Irish Sea herring fishery is also crucial to support a reliable time series, ensuring robust and sustainable management. The actions below are focussed on building on the current data collection and scientific approach. This will ensure longer-term improvements are based on robust evidence. Where appropriate, the fisheries policy authorities should work together on the collection of, and sharing of, such scientific data.

How could this be achieved:

- Ensure the best scientific advice is available for management decisions by contributing to and participating in the international stock assessment process, notably through the provision of high-quality data.
- Seek a benchmarking process for the Irish Sea herring assessment as a UK priority.
- Improve the evidence base for herring stocks including supporting work to determine if and how exploitation of fish stocks outside of the FMP area is affecting the Irish Sea herring stock within the FMP area and vice versa.
- Evaluate current data gathering protocols to identify means of improving data provision, consistency, and identifying any critical data and knowledge gaps. Explore further options for assessing stock(s) or exploitation status.
- Build partnerships between stakeholders and UK Research and Innovation (UKRI) institutes to ensure that:
 - research is targeted at answering management questions,
 - research is peer reviewed,
 - industry is engaged with and consulted,
 - data is made available to support evidence-based fishery management, and
 - both fishery-dependent and independent data are fully utilised.
- Regularly engage with representative groups (including NIFPO and ANIFPO) on how best to utilise scientific evidence published by ICES. Consult directly with fishermen on firsthand data to improve stock assessment and fisheries management accuracy.

Goal 3: Deliver wider sustainable management by taking steps to minimise the impact of Irish Sea herring fisheries on the marine ecosystem.

Rationale: All forms of fishing have an impact on the marine environment and marine ecosystems to varying degrees, whether through the removal of target fish species, incidental bycatch of non-target fish or other marine species, or seabed interaction. Understanding and minimising these impacts, where possible, is an important part of delivering an ecosystem-based approach.

To mitigate the impact of Irish Sea herring fisheries on the marine ecosystem, it is important to reduce incidental bycatches. All catches must be recorded, and incidental catches of sensitive species minimised or, where possible, eliminated. Enhanced monitoring and reporting would improve data on bycatch. The implementation of a catch recording scheme across larger vessels could facilitate bycatch monitoring and reduction measures. Observers already record bycatches in the herring fishery.

Fisheries Administrations should extend bycatch monitoring and reporting across the UK Irish Sea herring fleet to support the implementation of the UK Bycatch Mitigation Initiative.

Fishing activities should be managed using an ecosystem-based approach to ensure that any negative impacts on marine ecosystems are avoided or where adverse effect is unavoidable, it is minimised, and where appropriate mitigated.

Spawning habitats are vulnerable to disturbance and measures must be taken to ensure they are not impacted by damaging activities. Abandoned, lost or discarded fishing gear is associated with sensitive species entanglements and ghost fishing, so reduction of marine litter is welcomed.

How could this be achieved: short-term

- Fisheries policy authorities will allocate additional quota in line with the requirements of the Act, paying due regard to the need to incentivise low impact fishing.
- Continue to implement fisheries management measures for existing MPAs and consider the need for any new actions. Measures should complement the conservation objectives.
- Continue to work with industry and other stakeholders on a range of management initiatives such as:
 - Protecting spawning and nursery areas of the stocks,
 - Monitoring and review of the Irish Sea herring fishery to improve environmental and economic sustainability, and

- Rollout of REM to key parts of the UK fishing fleet to improve data and monitoring of catch and interactions with sensitive marine species.
- Support data collection under the UK Bycatch Mitigation Initiative to improve understanding of risk and frequency of sensitive species interactions; the effectiveness of existing mitigation and avoidance measures; and implement improvements. This includes the addition of seabirds and mammals to observer data collection forms, supporting the Seabird Conservation Strategy and Action Plan.

How could this be achieved: long-term

- Explore avenues to protect and enable recovery of habitats identified as important to herring from the pressures that pose risks to them, including certain fishing practices and other marine activities.
- Continue and support, where possible, new work to deliver an increased understanding of benthic disturbance and impacts. For example, seafloor litter, surface litter and beach litter.
- Support and encourage existing good practice within the fishing industry in relation to the handling of sensitive and/or vulnerable marine species and the returning of them to the sea unharmed.
- Support ongoing research initiatives to support the reuse and repurpose of end-of-life fishing gear back into the fishing industry.
- Fisheries authorities to continue to engage with the Isle of Man Department of Environment, Food and Agriculture (DEFA) on important spawning grounds within Isle of Man territorial waters to ensure continued protection.

Goal 4: Support fishing businesses to deliver socio-economic and cultural benefits for rural and coastal communities.

Rationale: As set out in the JFS and the Act, the UK fisheries policy authorities hold an ambition to support a modern, resilient, and environmentally sustainable and responsible fishing industry. This includes managing our fisheries sustainably by balancing environmental, economic, and social considerations, and managing the capacity of fleets so they are economically viable, but do not overexploit marine stocks. The JFS notes that the scope of an FMP may be extended, as appropriate, to consider wider fisheries management issues covering environmental, social, and economic concerns.

Sustainable Irish Sea herring fisheries are an opportunity to produce a high-quality food, primarily for direct human consumption, and as such provide the optimal economic return for the fleets and on shore businesses.

How could this be achieved: short-term

- Continue to take account of socio-economic factors as part of the international negotiations and setting of fishing opportunities.
- Continue to gather evidence on economic aspects of the fishery to ensure management decisions are informed by the best available evidence.
- Encourage and support where possible innovation and growth of the sector.
- Incentivise sustainable practices through the allocation of additional quota where evidence supports a sustainable application.

How could this be achieved: long-term

- Monitor and assess the Irish Sea herring fisheries to better understand the social and economic value provided to the coastal communities within the FMP area.
- Consider schemes within the scope of this FMP that support pelagic fisheries in response to external pressures and other marine uses.

Goal 5: Minimise the impact of fishing activities on climate change and support the fishing industry to adapt to the impacts of climate change.

Rationale: In accordance with the climate change objective of the Fisheries Act and the statutory duties under the Climate Change Act (Northern Ireland) 2022, this FMP commits to reducing or avoiding the adverse effects of fishing on the climate and supporting the industry to adapt to environmental change.

Our understanding of how fishing affects the climate and how climate change will affect fish stocks, ecosystems, and coastal communities is still evolving. We need better evidence on:

- How to reduce carbon emissions from fishing operations in a sustainable way, and
- The likely impacts of climate change on stock distribution, size composition, spawning grounds, plankton productivity, and food webs.

There may be changes to the distribution and size composition of the Irish Sea herring stock, and adjacent herring stocks, as a result of local climatic shifts in environmental conditions, but the overall extent and impacts are not yet fully understood.

We also know that fishing vessels need to reduce fuel emissions in the future, although there are no solutions currently in place for fishing vessels. As we move towards net zero, fishing can provide a high-protein and low carbon method of food production and contribute to food security. Even though fishing vessel emissions are a minor

component of GHG emissions at the UK level, UK pelagic fisheries are several magnitudes lower in emissions per kilogram of landed product than other fisheries.

The actions set out below are not unique to the Irish Sea herring fishery. However, as our evidence base grows, we will better understand the specific impacts of climate change on Irish Sea herring, and the scale of change required to support vessels fishing for herring to reduce their emissions. In doing so, we can also adapt to changes in the Irish Sea herring stock and adjacent herring stocks, and general fishing conditions. These actions are likely to change over time and become more refined.

Possible measures which could support this policy goal are already in development and / or being delivered. The FMP will support these measures, although it is not directly introducing or delivering them.

How could this be achieved: short-term

- Ensure that Irish Sea herring is considered within wider iterative research to examine the likely impacts of climate change on herring fisheries, spawning areas, food sources and their connective links within the wider ecosystem.
- Collaboration across government, industry, and academic sectors on initiatives to reduce the environmental impact of Irish Sea herring fisheries, including reducing CO₂ emissions, greater fuel efficiency and alternative vessel fuels.
- Continue to gather and develop evidence of the impacts that Irish Sea herring fisheries have on the marine environment (including CO₂ emissions) through collaborative studies.

How could this be achieved: long-term

- Evaluate the most appropriate mechanism for integrating information on the effects of climate change on FMP stocks and fisheries into fisheries management, including stock assessments and advice on fishing opportunities.
- Build on the work carried out by WKIrish on the impacts of climate change on zooplankton and the large zooplankton index, which was identified as a key driver in herring stocks.
- Evaluate and support the roll-out of new technologies and practices to decarbonise the fleet and build resilience, in line with the carbon budgets established under the Climate Change Act.

2. Approach to Strategic Environmental Assessment

Screening

[SEA Regulations 2004](#) requires that qualifying public plans, programmes, and strategies undergo screening for SEA during their preparation and prior to adoption. Fisheries Management Plans are plans that fall within the definition in regulation 2.

DAERA, Welsh Government, and Defra consider that Regulation 3(2)(b) of the SEA Regulations 2004 applies to the draft Irish Sea Pelagic FMP as the plan relates to Northern Ireland, Wales, and England.

In accordance with the SEA Regulations 2004 the UK fisheries policy authorities carried out a screening exercise which determined that the proposed policy goals and actions in the draft Irish Sea Pelagic FMP may have likely significant effect (either positive or negative) on a European site or a European offshore marine site and they are not directly connected with or necessary to the management of such sites. Therefore, DAERA, Welsh Government, and Defra have carried out an SEA of the draft Irish Sea Pelagic FMP.

The screening exercise used DAERA's [Northern Ireland Marine Map Viewer](#) to identify whether the geographical scope of the FMP overlaps with any Special Areas of Conservation or Special Protection Areas. Table 3, page 35 of [The updated UK Marine Strategy Part 1](#) sets out the pressures on the marine environment resulting from anthropogenic activity, which includes fishing. This information was used to identify whether fishing activity for herring has the potential to impact these sites and interest features. For example, herring fishing has the potential to result in the extraction of, or mortality/injury to wild species.

The screening also judged that the proposed policy goals and actions in the draft Irish Sea Pelagic FMP have the potential to affect multiple European marine sites and the wider marine environment. Based on the outcome of the screening, the relevant fisheries policy authorities concluded the FMP falls within the description of a plan in regulation 5(3) of the SEA Regulations 2004, and so as a result of regulation 5(1) must be subject to SEA in accordance with Part 3 of the SEA Regulations 2004 during its preparation and prior to its adoption (publication).

Completing this SEA does not remove any other statutory obligation on competent authorities to assess the possible environment impact of a policy or measure ahead of its implementation.

Scoping

DAERA, Welsh Government, and Defra carried out a scoping exercise to identify the scope and level of detail of the assessment that will be documented in the Environmental Report. Regulation 12(5) requires that when deciding on the scope and level of detail of the information in the Environmental Report, the responsible authorities must seek the views of the Consultation Bodies.

A Scoping Report identifying the scope and level of detail of the assessment of the draft Irish Sea Pelagic FMP was provided to the following Consultation Bodies:

- Natural England
- Joint Nature Conservation Committee (JNCC)
- Environment Agency
- Historic England
- Cadw (Welsh Historic Monuments)
- Natural Resources Wales
- Northern Ireland Environment Agency (NIEA)
- Historic Environment Division

See Appendix F for Consultation Body responses on the Scoping Report and how consideration was given to the points raised in each response.

Regulation 12(3) of the SEA Regulations 2004 requires that the Environmental Report shall include the information referred to in [Schedule 2](#), in so far as it is reasonably required. Table 2 sets out which section of this report corresponds to the relevant paragraphs of Schedule 2.

Table 2. Environmental report section and the corresponding paragraph of Schedule 2 of the SEA Regulations 2004.

Section(s) of this Report	Corresponding Paragraph in Schedule 2
Sections: 1 and 4	Paragraph 1: An outline of the contents and main objectives of the plan or programme, and of its relationship with other relevant plans and programmes.
Section: 3 and 7	Paragraph 2: The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme.
Section: 3	Paragraph 3: The environmental characteristics of areas likely to be significantly affected.

Section(s) of this Report	Corresponding Paragraph in Schedule 2
Section: 3	Paragraph 4: Any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, [such as a European site (within the meaning of regulation 8 of the Conservation of Habitats and Species Regulations 2017)].
Section: 4	Paragraph 5: The environmental protection objectives, established at international, [European Union] or national level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation.
Section: 5	Paragraph 6: The likely significant effects on the environment, including short, medium and long term effects, permanent and temporary effects, positive and negative effects, and secondary, cumulative and synergistic effects, on issues such as– (a) biodiversity; (b) population; (c) human health; (d) fauna; (e) flora; (f) soil; (g) water; (h) air; (i) climatic factors; (j) material assets; (k) cultural heritage, including architectural and archaeological heritage; (l) landscape; and (m) the inter-relationship between the issues referred to in sub-paragraphs (a) to (l).
Section: 6	Paragraph 7: The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme.
Section: 7	Paragraph 8: An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information.
Section: 8	Paragraph 9: A description of the measures envisaged concerning monitoring in accordance with regulation 17.

Section(s) of this Report	Corresponding Paragraph in Schedule 2
Non-technical summary	Paragraph 10: A non-technical summary of the information provided under paragraphs 1 to 9.

Scope of the Assessment

Schedule 2 paragraph 6 to the SEA Regulations 2004 lists the issues that must be considered for an assessment of likely significant effect in relation to the FMP. Based on its initial evaluation of likely significant effects and taking into account the results of the scoping consultation carried out (see scoping above and Appendix F), the following conclusions were reached regarding the content of the Environmental Report.

DAERA, Welsh Government, and Defra propose that the Environmental Report will address the effects on the following issues:

- Biodiversity, fauna and flora including the following sub-sections: cetaceans, seals, birds, fish, benthic habitats, commercially exploited fish and shellfish, food webs.
- Geology and sediments (soil) including the following sub-section: benthic habitats.
- Water including the following sub-sections: marine litter and underwater noise.
- Climatic factors including the following sub-sections: vessel emission, blue carbon.
- Cultural Heritage including the following sub-section: interactions between fishing gear and marine heritage assets.

DAERA, Welsh Government, and Defra scoped the following issues out of the assessment, and therefore they will not be covered in the Environmental Report:

- Population (Human)
- Human health
- Air
- Material assets
- Landscape and Seascape

Fishing activity being managed through the FMP has the potential to have some level of interaction with all the issues from Schedule 2 paragraph 6, however the scoping exercise considered and scoped in those environmental issues that may be significantly affected by the draft Irish Sea Pelagic FMP. Issues such as Population, Human Health, Air, Material Assets and Landscape and Seascape were scoped out of this assessment as it was considered that they would not be significantly affected by

the FMP. Table 3 provides the justification behind this decision. Additional rationale behind why sub-sections were considered is set out below:

- To link the issues (from Schedule 2 paragraph 6) that will be addressed by this Environmental Report with the environmental baseline (see section 3), we have attributed a UK Marine Strategy (UK MS) descriptor of Good Environmental Status (GES) to the appropriate corresponding issue(s); see Appendix A for the list of the 11 UK MS descriptors. Achieving GES is about protecting the natural marine environment, preventing its deterioration and restoring it where practical, while allowing sustainable use of marine resources.
- Assessing the status of these descriptors identifies where improvements are required to achieve GES. Knowing the current status will help direct efforts to reduce the impacts of certain human activities. The [UK Marine Strategy assessment tool](#) provides further information.
- Under the UK MS, Descriptor 1 – Biodiversity has been split into the following sub-sections, cetaceans, seals, birds, fish, benthic habitats. These sub-sections are all relevant to the biodiversity issue from Schedule 2 paragraph 6 and therefore have been included in this assessment.
- Marine Litter and Underwater Noise have been included as the most relevant sub-sections assessed by UK MS under the Water issue heading. Fishing activity was considered not to contribute on Eutrophication, Changes in Hydrographical Conditions and Contaminants; therefore, these sub-sections have not been included.
- Climatic factors are not considered under the UK MS assessment process; therefore, no predetermined sub-sections are available. Vessel emissions and blue carbon were identified as the two most relevant issues related to fishing activity that are associated with climate change.
- Cultural heritage is also not considered under the UK MS assessment process; therefore, no predetermined sub-sections are available. The interaction between fishing gear and marine heritage assets was identified as the most relevant impact related to fishing activity that is associated this issue heading. This was scoped in based on feedback from consultation responses and was advised based on the cultural heritage of fishing itself e.g., vessel wrecks, and any potential positive interactions between FMPs and heritage.

Table 3 shows the results of the scoping exercise on the draft Irish Sea Pelagic FMP.

Table 3. Results of the scoping exercise to determine those environmental issues likely to be significantly affected by the draft Irish Sea Pelagic FMP and thus scoped into the SEA⁵

Issue	Potential to cause impacts	Justification
Biodiversity, fauna and flora (UK MS descriptors D1, D3, D4, D6)	Yes	Fishing activity for herring has the potential to result in: • Physical disturbance to the seabed; • The extraction of, or mortality of/injury to/disturbance to, both target and non-target wild species; • Changes in predator/prey behaviour/availability due to direct and indirect effects of fishing in an area, and removal of species; • Impact upon ecosystem services and resilience.
Population (Human)	No	The FMP would not result in significant increases, decreases or both in human population numbers, or changes to in-migration or out-migration. This issue is beyond the scope of this SEA.
Human health	No	The FMP would not result in any significant human health issues. Whilst fishing remains a dangerous vocation and the FMP will promote safe operations, the regulation of the safety of fishing operations falls elsewhere. This issue is beyond the scope of this SEA.
Geology and sediments (soil) (UK MS descriptor D6)	Yes	The FMP aims to reduce the harmful effects of fishing on the marine environment by adopting an ecosystem-based approach to fisheries management. This issue is within the scope of this SEA.
Water (UK MS descriptors D10, D11)	Yes	Fishing activity has the potential to input litter (solid waste matter, including micro-sized litter) and anthropogenic sound into the marine environment. The FMP aims to make fishing practices more environmentally sustainable so there is

⁵ Where relevant, the relationship between the issue and the UK MS descriptor of GES is shown as 'D#' where # represents the number of the descriptor, as shown in Appendix A.

Issue	Potential to cause impacts	Justification
		scope to reduce the impact of fisheries on water quality. This issue is within the scope of this SEA.
Air	No	The FMP is unlikely to result in significant additional vessel emissions and associated air pollution. Reducing vessel emissions from a carbon footprint perspective will be considered by the Climatic factors issue. This issue is beyond the scope of this SEA.
Climatic factors	Yes	The FMP will make an appropriate contribution to the climate change objective of the Fisheries Act 2020, seeking to ensure it develops relevant policies to both mitigate impact on and adapt to climate change. For example, by reducing the carbon footprint of the fishery, and seeking a positive impact on blue carbon habitats. This issue is within the scope of this SEA.
Material assets	No	The FMP will not intrinsically impact material assets related to; ports and shipping; fisheries and aquaculture; leisure or recreation; tourism; marine manufacturing; defence; aggregate extraction; energy generation and infrastructure development; seabed assets. This issue is beyond the scope of this SEA.
Cultural heritage	Yes	Fishing activity for herring has the potential to interact with marine heritage assets. While the FMP is not intended to focus on mitigating the impacts of fishing on the marine historic environment, there is potential for fisheries management to have a positive effect on safeguarding cultural heritage features. This issue is within the scope of this SEA.
Landscape and Seascape	No	The FMP is unlikely to significantly alter the current effects of fishing practices on the landscape and or seascape in the UK. This issue is beyond the scope of this SEA.

Assessment Methodology

This SEA reflects the geographical scope (section 1) and type of fishing covered by the FMP. It considers the policy goals of the draft Irish Sea Pelagic FMP and the actions (section 1) it sets out to achieve these goals. The assessment reviewed existing evidence on the current state of the marine environment, which included the impact of fishing within the baseline state (section 3).

It assessed the nature and extent of likely effects of the draft Irish Sea Pelagic FMP (including its policy goals and actions) on those environmental issues scoped into the assessment and where applicable their associated UK MS descriptors identified in Table 3.

As the FMP is a strategic programme of work, the SEA will consider the potential positive and negative environmental effects of management options in the context of the UK MS descriptors. This SEA will also consider the in-combination effects and interactions of this FMP with other plans and projects, including Marine Plans and other FMPs.

More detailed fisheries assessments which consider current activity are already in progress or have been completed. These assessments may be used to inform the FMP actions as they are delivered, and include:

- Defra's Revised Approach to fisheries management programme (inside 12 nautical miles).
- The Marine Management Organisation's (MMO) ongoing offshore MPA Fishery Assessment programme (outside 12 nautical miles) in England.
- Assessments required to prepare the Marine Protected Areas (Prohibited Methods of Fishing) Regulations (Northern Ireland) 2022 came into operation on 1 January 2023. Further fisheries measures are being drafted for 3 offshore MPAs and will be consulted on later this year.
- The Welsh Government's '[Assessing Welsh fishing activities](#)' and '[Assessing Welsh Fishing activities in Marine Protected Areas](#)'
- The wider marine environment (UK MS) assessments.

Future delivery of the policy goals, actions and measures specified in the FMP programme may give rise to management changes such as new legislation to regulate herring fishing. Such changes may have the potential to impact MPAs and their features and will be subject to more detailed assessment before being implemented.

Nevertheless, this ER acknowledges the likely significant effects associated with fishing activity being managed through the draft Irish Sea Pelagic FMP and sets out in broad terms how the FMP will seek to avoid, reduce, or at least mitigate significant negative effects.

During the development of the draft Irish Sea Pelagic FMP, advice was sought from Statutory Nature Conservation Bodies (SNCBs) (DAERA, Natural England, NRW and JNCC) on the impacts of fishing activity in relation to MPAs, Priority Features (Northern Ireland) and UK MS descriptors was considered. This ER reviews how this advice has been reflected in the FMP, and how the proposed policy goals and actions could change the baseline.

It is important to note the draft Irish Sea Pelagic FMP contains a range of policy goals and actions that vary in their stage of development depending upon the evidence available to support their implementation. The level of detail possible for our environmental assessment depends upon the stage of development of the goals and actions of the FMP at the present time.

This assessment acknowledges the draft Irish Sea Pelagic FMP sets out actions to develop the evidence base around herring fisheries. Our assessment used the best available evidence at the present time to reach a judgement on the environmental effects of the draft Irish Sea Pelagic FMP.

The detail of the environmental assessment is covered in section 5.

3. Environmental Baseline

Summary of the Current State of the UK Marine Environment

Section 3 provides a summary of the current state of the UK marine environment for each of the environmental issues screened into this SEA, and where applicable their associated UK MS descriptors (Table 3). The SEA has been conducted against the environmental baseline set out in these sources of existing information. We acknowledge that there are some uncertainties and evidence gaps in the environmental baseline. However, we consider that this environmental baseline provides a comprehensive level of information to undertake an effective assessment and provide informed evidence-based recommendations. Where required, further detailed assessments using additional evidence will be completed ahead of the implementation of FMP actions.

It is likely that without the FMP, those issues which are contributing to the current state of the marine environment will likely continue to have an influence. The draft FMP seeks to promote the management of herring fisheries in a more coherent and coordinated manner that considers wider environmental issues. The draft FMP has the potential to improve the current state of the environment set out below, both where no improvement has been observed, and where positive trends have been identified.

Section 6 and 7 considers how the implementation of the FMP's proposed policy goals and actions could change the baseline.

Biodiversity, Flora, Fauna and Geodiversity⁶ (Geology and sediments)⁷

The primary source of information on the current state of the UK marine environment came from the UK MS descriptor status assessments, [The updated UK Marine Strategy Part 1](#), published in 2019. The impact of fishing has been considered as part of the assessment on the UK MS descriptors, therefore information on the impact of fishing activity on the marine environment has been included in the sections below as part of the baseline. For further information on the baseline related to UK MS descriptors see Appendix B.

D1 and D4 – [Cetaceans](#)

Cetaceans (whales and dolphins) are an important marine ecosystem component that contributes to overall levels of biodiversity (D1). In addition, as top predators, the abundance of cetaceans can also provide some understanding on how the food web is functioning (D4).

The current status of cetaceans for both the North Sea and Celtic Sea is mixed. While there are some aspects that are in line with the achievement of GES, much of the picture is unclear. The impact of various net fisheries is leading to bycatch that, in places, might be impacting long term population viability of harbour porpoise.

Other than for a limited number of coastal bottlenose dolphin populations, it is unclear whether the abundance and range of most cetacean species can be considered in line with GES. Fisheries and the removal of prey species is one of several activities/ pressures that have the potential to result in changes in cetacean abundance and distribution. For more information, read [UK MS Cetaceans assessment](#).

D1 and D4 – [Seals](#)

Seals are an important marine ecosystem component that contributes to overall levels of biodiversity (D1). In addition, as top predators, seal productivity can also provide some understanding and insight as to how the food web is functioning (D4).

Grey seals populations and productivity continues to increase, and targets are being met. Bycatch (largely in tangle/ trammel nets) is occurring but not at levels that threaten population viability. For harbour seals, the status is not in line with GES where

⁶ Geodiversity is defined as the natural range of rocks, minerals, fossils, landforms, topography, sediments and soils together with the natural processes which form and alter them.

⁷ Geodiversity (Geology and sediments) issue has been combined with the Biodiversity, Flora, and Fauna section as benthic habitats is relevant to these issues.

population declines have occurred in some areas. The cause is unknown. It is not thought to be linked to bycatch as occurrences are rare and there is no indication that it is linked to other pressures associated with fishing. For more information, read UK Marine Strategy seal biodiversity assessment.

D1 and D4 – [Birds](#)

Seabirds are well monitored species that are an important marine ecosystem component that contributes to overall biodiversity (D1). In addition, as top predators, the abundance of birds can also provide some understanding and insight as to how the wider food web is functioning (D4).

Seabird populations are currently below the level that is considered to meet GES and the situation is deteriorating. Some declines in breeding success have been linked to prey availability caused by climate change and/ or past and present fisheries. Invasive predatory mammals are also known to impact breeding success on island colonies. The impact of bycatch will be included in future assessments and current evidence suggests that some longline and static net fisheries could be having possible population level impacts on certain species. For more information, read UK Marine Strategy marine bird biodiversity assessment.

D1 and D4 – [Fish](#) and D3 – [Commercially exploited fish and shellfish](#)

Fish are an important ecosystem component that contributes to overall levels of biodiversity (D1). In addition, fish of different species have a significant role in marine food webs (D4), acting as both predators and prey. Some fish species are commercially exploited, and only a proportion of these have managed quotas. Over exploitation can lead to a decline in stocks (D3) which can reduce both future commercial opportunities and have wider ecological impacts.

The current status of fish communities in the UK is primarily shaped by historical over-exploitation by fisheries, while ongoing over-exploitation continues to be a notable contributing factor. Improved fisheries management since the 1990s has resulted in more stocks being fished at or below MSY levels so, although the target is not yet met, there is a positive trend. Improved fisheries management has also resulted in some positive trends in fish communities beyond the targeted stocks. For more information, read, UK Marine Strategy fish biodiversity assessment and UK Marine Strategy commercial fish and shellfish assessment.

D1 & D6 – [Benthic Habitats](#)

Benthic habitats are an important ecosystem component that contributes to overall levels of biodiversity (D1). It is also important to ensure the structure and function of the benthic ecosystems is adequately safeguarded by considering seafloor integrity (D6).

There is widespread disturbance of seabed habitats by demersal towed gear and other marine activities, and this is preventing the achievement of GES. Other impacts from non-fisheries activities may also be having an influence, but to a much lesser degree. For more information, read UK MS benthic biodiversity and seafloor habitats assessment.

D4 – [Food webs](#)

Food webs (D4) are the network of predator-prey relationships that occur in the marine environment, from phytoplankton to top predators such as birds or seals. Fish communities are a key component of food webs. Knowledge of food webs allow understanding of how changes at one trophic level can impact those above and below it.

Historic fishing activity which has contributed to the current environmental baseline, has had a large impact on fish community structure which is a key component of marine food webs. With improved fisheries management focusing on stocks, some recovery is occurring. However, the management of fish stocks solely to safeguard future fisheries will not necessarily lead to all food web targets being met. Changes in plankton are likely driven by prevailing environmental conditions, but other impacts cannot be ruled out. For more information, read UK Marine Strategy food webs assessment.

Water Quality

D10 – [Marine Litter](#)

Marine litter, including from fishing activities, is a significant pressure on marine ecosystems and water quality. The UK has not yet achieved its aim of GES for litter. Beach litter levels in the Celtic Seas have remained largely stable since the assessment in 2012, whilst beach litter levels in the Greater North Sea have slightly increased. Waste fishing material is a component of beach litter. Both floating litter and seafloor litter remain an issue, with plastic the predominant material. Achieving GES for marine litter requires improved waste management practices, the reduction of lost or discarded fishing gear, and increased awareness and monitoring of the issue. For more information, read UK MS litter assessment.

D11 – [Underwater noise](#)

Underwater noise from fisheries, while not the primary source, can still contribute to the overall noise pollution in the marine environment. Fishing vessels will contribute to underwater noise through sonar, engine noise, gear interacting with seabed and deploying and retrieving gear. For more information, read UK MS underwater noise assessment.

The achievement of GES for underwater noise in the UK is uncertain. Research and monitoring programmes established since 2012 have provided an improved understanding of the impacts of sound on marine ecosystems. However, achieving GES for underwater noise will require better understanding and monitoring of the issue, as well as the development and implementation of strategies to manage noise pollution from various sources.

Climatic Factors

Climate change impacts are not part of the UK MS, therefore evidence from other sources were used to provide baseline information in relation to this issue. Statistics from Statistics from the Department for Energy Security and Net Zero (DESNZ), Department for Transport (DfT) and Engelhard et al (2022) report on Carbon emissions in UK fisheries, were used to identify the contribution UK fishing fleets have to the total carbon emissions at sea each year.

Vessel Emissions

Emissions from ships are an important source of air pollutants, including sulphur dioxide (SO₂) and nitrogen oxides (NO_x) which have the significant health and environmental impacts.

For 2019, estimated emissions by the UK fishing fleet (802 kt CO₂e) would have represented 0.18% of the UK's total territorial emissions (455 Mt CO₂e)⁸, or 0.66% of the UK's domestic transport emissions (122 Mt CO₂e)⁹. To put this into context, estimated emissions by the UK fishing fleet would have been equivalent to 1.7% of total agricultural emissions in 2019 (46.3 Mt CO₂e).

Recent analysis has shown that the total UK pelagic trawl fleet segment (which comprises of 26 active vessels) produced 15.7% (132kt CO₂e) of the total at sea carbon emissions annually across the UK's fishing fleets, and drift and fixed net fisheries (237 vessels) produced <2% (13kt CO₂e)¹⁰. Data available from Seafish show that in 2022 herring was one of the highest landed species by volume into the UK¹¹.

Whilst passive gears are generally less emission-intensive than mobile gears, quantification of carbon emissions across the fishing fleet supply chain (for example,

⁸ BEIS (Department for Business, Energy & Industrial Strategy) (2021b) [2019 UK Greenhouse Gas Emissions: Final Figures – Statistical Summary](#).

⁹ [DfT \(Department for Transport\) \(2021\) Statistical Release: Transport and Environment Statistics 2021 Annual Report, 11 May 2021](#).

¹⁰ Engelhard, G.H., Harrod, O.L., Pinnegar, J.K. (2022) Carbon emissions in UK fisheries: recent trends, current levels, and pathways to Net Zero Final report for Defra project C8118. Centre for Environment, Fisheries & Aquaculture Science (Cefas), Lowestoft, UK.

¹¹ Seafish [Seafood in numbers 2022](#).

preharvest through to postharvest) is required to truly understand the fisheries carbon footprint.

Climate change impacts on herring stocks and fisheries

Under future climate change scenarios, modification of temperature and salinity are expected to result in shifts to distributions of marine organisms, including commercial fish species¹². In an analysis of 50 abundant species in the waters around the United Kingdom and Ireland, 72% of the fish species were shown to have responded to warming in the region already, through changing distribution and abundance¹³. Specifically, warm-water species have increased in abundance while cold-water species have decreased, with these trends expected to continue in the future¹⁴. For species such as herring, it is likely that habitat suitability for the species will change, resulting in less favourable conditions for the species to live in UK waters in the longer term.

Cultural Heritage

The definition of the 'marine and aquatic environment' in the Fisheries Act 2020 (section 52) includes features of 'archaeological or historic interest in marine or coastal areas. These features should be regarded as part of the wider marine environment.

Cultural heritage impacts are not part of the UK MS, therefore evidence from other sources were used to provide baseline information in relation to this issue.

The [Fishing and the Historic Environment](#) report produced by Historic England was used as the primary source of information on the interactions between commercial fishing and the marine historic environment. The report identifies that positive and negative interactions can arise when archaeological material present on the foreshore and seabed, is encountered during commercial fishing. Pelagic towed gear, mid-water trawls and purse seines are unlikely to encounter marine heritage assets and therefore interactions are not anticipated, except for incidental gear loss. Interactions with drift nets may occur, resulting from entanglement and snagging on marine heritage assets, but this is likely to have a low significance. Fixed nets may have a low to moderate significance resulting from a higher likelihood of entanglement and snagging, and anchoring impacts. While these interactions may result in negative impacts to heritage

¹² Townhill, B., Couce, E., Rutterford, L., & Pinnegar, J. (2018). Future projections of commercial fish distribution and habitat suitability around the British Isles. Report of BX006 work package: Long-term distribution shifts and zonal attachment. CEFAS, Lowestoft.

¹³ Simpson, S.D., Jennings, S., Johnson, M.P., Blanchard, J.L., Schön, P.J., Sims, D.W. and Genner, M.J., 2011. Continental shelf-wide response of a fish assemblage to rapid warming of the sea. *Current Biology*, 21(18), pp.1565-1570.

¹⁴ Poloczanska, E.S., Burrows, M.T., Brown, C.J., García Molinos, J., Halpern, B.S., Hoegh-Guldberg, O., Kappel, C.V., Moore, P.J., Richardson, A.J., Schoeman, D.S. and Sydeman, W.J., 2016. Responses of marine organisms to climate change across oceans. *Frontiers in Marine Science*, p.62.

assets, some archaeological resources may not be discovered without interactions with fishing gear.

The report identifies several potential and evidenced interactions between commercial fishing and marine heritage assets, although given the predominant use of pelagic trawls in herring fisheries, this is not likely to be a significant issue. Given the anecdotal nature of many of these interactions a comprehensive assessment of the extent of interactions and their impacts, is currently not available for Northern Ireland waters, Welsh waters, and English waters.

The historic environment map viewer for Northern Ireland provides an overview of historic sites and landscapes [Historic Environment Map Viewer | Department for Communities \(communities-ni.gov.uk\)](#).

Existing Environmental Effects of Herring Fishing

The draft Irish Sea Pelagic FMP focuses on achieving the sustainable harvesting of herring stocks. This focus seeks to reduce the environmental risks linked to over-fishing these stocks, thereby giving positive benefits to environmental status.

Nevertheless, fishing within sustainable limits for the target stocks (MSY or appropriate proxies) may reduce but will not eliminate the negative impacts of that fishing activity on the wider marine environment. These impacts are identified in the sections below.

As described in Section 2, this Environmental Report focuses on assessing how the policy goals and actions in the draft Irish Sea Pelagic FMP are likely to give rise to both significant positive and negative environmental effects. More detailed fisheries assessments which consider current activity are already in progress or have been completed. These assessments may be used to inform the FMP actions as they are delivered, and include:

- Defra's Revised Approach to fisheries management programme (inside 12 nautical miles).
- The Marine Management Organisation's (MMO) ongoing offshore MPA Fishery Assessment programme (outside 12 nautical miles) in England.
- Assessments required to prepare the Marine Protected Areas (Prohibited Methods of Fishing) Regulations (Northern Ireland) 2022 came into operation on 1 January 2023.
- The Welsh Government's '[Assessing Welsh fishing activities](#)' and '[Assessing Welsh Fishing activities in Marine Protected Areas](#)'. The Assessing Welsh Fishing Activities Programme is in place in Wales. This work assesses likely impacts to habitats and features from specific gears - it does not assess impacts from current activity, but the generic assessments are used to inform management.

Nevertheless, this ER acknowledges the potential significant effects associated with fishing activity being managed through the draft Irish Sea Pelagic FMP and sets out in broad terms how the FMP will seek to avoid, reduce, or at least mitigate significant negative effects.

Biodiversity, Flora, Fauna and Geodiversity, Water quality

Environmental Effects Associated with MPAs

Advice provided to fisheries policy authorities by SNCBs gives more detail on the risks associated with herring fishing in relation to the designated features of MPAs in Northern Ireland, Welsh, and English waters. Joint advice from JNCC and DAERA (Conservation) was commissioned by DAERA's Sea Fisheries Policy Branch covering impacts in Northern Ireland waters. Additional joint advice from Natural England and JNCC, commissioned by Defra was provided, advising on environmental impacts of herring fishing in English waters, and advice for Welsh waters, commissioned by the Welsh Government, was provided by Natural Resources Wales (NRW).

Advice for Welsh waters was reviewed by JNCC and applies to both inshore and offshore waters, with no further advice recommended. This advice takes a different approach to attributing the risk ratings resulting in some apparent divergence across the SNCB advice. However, this divergence is due to this difference in approach rather than a difference in risks across the region. Readers should therefore note that differences in risk ratings between NRW and other administrations predominantly reflect differences in assessment approach rather than substantive differences in the underlying ecological risk; the recommendations across the advice remain consistent

Inside the boundaries of Northern Ireland MPAs, DAERA assesses human activities that could interact with the designated features of MPAs, seeks the advice of SNCBs and introduces management where required. The impact of herring fisheries inside MPAs has been assessed and stakeholders have worked closely with regulators to help develop measures to mitigate impacts within MPAs. In territorial waters (0-12nm) appropriate management is already in place to ensure any fishing within MPAs is compatible with the MPA's conservation objectives, as outlined in the [Marine Protected Areas \(Prohibited Methods of Fishing\) Regulations \(Northern Ireland\) 2022](#). Subject to the proposed consultation, management of MPAs in Northern Ireland's offshore waters (12-200nm) may follow a similar approach.

In England the assessments of the impact of herring fishing activities inside MPAs are undertaken by the IFCA's within 6 nautical miles and the MMO outside 6 nautical miles. Stakeholders have worked/will work closely with regulators to help develop measures to mitigate impacts within inshore and offshore MPAs. Appropriate management is or will be in place to ensure any fishing within MPAs is compatible with the MPA's

conservation objectives. Current management measures already in place are detailed on the [MMO](#) and [Association of IFCAs](#) websites.

In Wales, the assessments of the impact of fishing activities for the five pelagic species inside MPAs are undertaken in-house and reviewed by Natural Resources Wales.

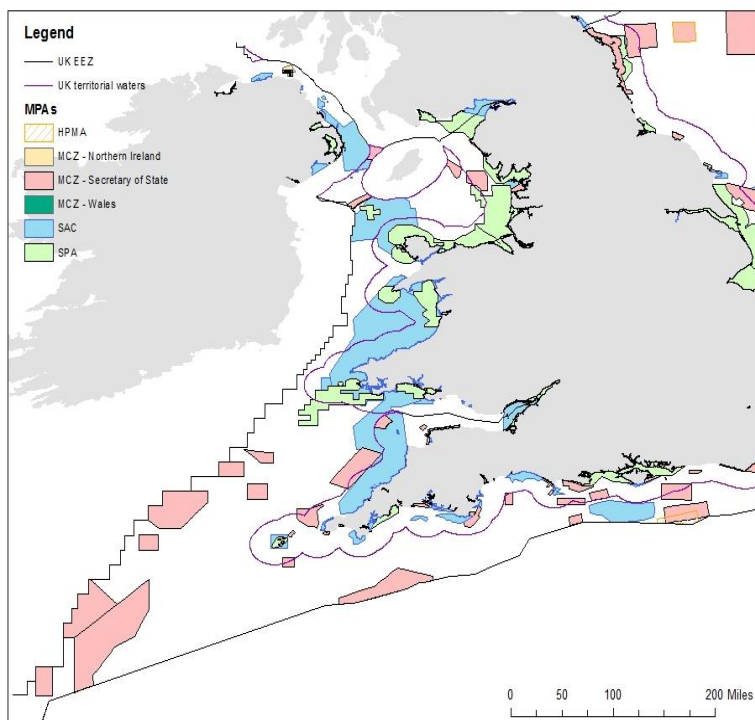


Figure 1. MPA network relevant to the Irish Sea Pelagic FMP area, showing the location of marine protected areas within Northern Ireland, Welsh, and English waters. The map includes Highly Protected Marine Areas, Marine Conservation Zones, Special Areas of Conservation, and Special Protection Areas.

Whilst existing MPA site management considers fishing activity that occurs within the site's boundaries, there remains the potential for fishing activity outside MPAs to have impacts on the features protected within the MPA. These impacts can occur when either the pressure exerted by the fishery impacts protected features beyond the spatial footprint of a particular fishing activity, (such as noise), or when the feature of an MPA is mobile and travels outside the site.

Environmental effects associated with designated features of MPAs in Northern Ireland waters

The results of an initial consideration of the available evidence and expert opinion of the main risks arising from the draft Irish Sea Pelagic FMP to the designated features of Northern Ireland MPAs are summarised below.

- While the risk to the conservation status of mobile species that are designated features of MPAs through bycatch from pelagic trawls is generally considered low, there are significant gaps in the available evidence, and this fishing activity occurs at a scale which has the potential for population level effects if bycatch rates are higher than expected. Therefore, **the risk rating for bycatch in pelagic trawls is assessed as moderate**. Continued or enhanced monitoring and research has the potential to improve our understanding of risk and is essential for directing management in relation to these more sensitive species.
- While mobile species are typically considered sensitive to bycatch in static and drift net fisheries, there is insufficient resolution to determine the impact of pelagic drift net fisheries specifically. Although the use of pelagic drift nets in the regions covered by the draft Irish Sea Pelagic FMP is limited, based on the potential sensitivity to bycatch, expert advice suggests the risk ought to be classed as moderate. Owing to significant gaps in the available evidence, **the risk rating for bycatch in pelagic drift nets is considered moderate**. Addressing evidence gaps through ongoing monitoring and research or, where necessary, through enhanced data collection will improve confidence in the assessment of bycatch risks.
- Herring stocks managed through the draft Irish Sea Pelagic FMP are considered key prey species for a broad range of predators and as such, are an important part of the marine ecosystem around Northern Ireland waters. There is good evidence to demonstrate that herring are key prey for many of the designated marine mammal, and seabird features in the Northern Ireland MPAs. However, the extent to which features rely on specific pelagic prey species is less clear. As such, **the risk rating for pelagic fisheries in Northern Ireland waters regarding removal of important prey species (herring) that designated species depend on is considered moderate**. Work done by the draft Irish Sea Pelagic FMP to ensure fisheries meet the precautionary and stock sustainability objectives of the Fisheries Act will help to ensure that exploited stocks are fished sustainably, but additional consideration of predator needs is recommended.

Risks relating to the designated features of MPAs in English waters

The main impacts of the fisheries incorporated in this FMP on the designated features of MPAs in English waters arising from fishing activity outside MPA site boundaries, with an indication of their risk level, are summarised below.

- There is a **moderate risk of bycatch of mobile species that are designated features of MPAs in pelagic trawls, ringnets, purse seines and pelagic drift nets.**
- There is a **moderate risk to the designated species of MPAs from reductions in their prey through the targeted herring fishery.**

Risks relating to the designated features of MPAs in Welsh waters

Only pressures considered to cause High or Medium risks to MPA features arising from the impacts of pelagic trawls, pelagic drift nets, and pelagic fixed nets are provided in our summary advice.

Due to species mobility some of these pressures can affect species features wherever they are. However, the pressures affecting habitats can only affect habitat features inside the boundaries of MPAs from fishing occurring either within or outside the MPAs.

Outside of MPAs, Annex I habitats contribute to wider Favourable Conservation Status (FCS) at a national level, and to Good Environmental Status (GES) under the Marine Strategy Regulations 2010.

The following list identifies the High and Medium pressure-feature risks for each of the three gear types considered:

Pelagic trawls

- There is a **Medium risk inside and outside** of MPAs from harbour porpoise bycatch.

Pelagic drift nets

- There is a **High risk inside and outside** of MPAs from harbour porpoise bycatch.

Pelagic fixed nets

- There is a **High risk inside** MPAs from abrasion and penetration to high MarESA sensitivity habitats e.g. seagrass beds, modiolus reefs and seapens.
- There is a **High risk inside and outside** MPAs from harbour porpoise bycatch.

All gears

- There is a **Medium** risk **inside** the Northern Cardigan Bay and Liverpool Bay SPAs for the common scoter and red-throated diver features from visual and above water noise disturbance from fishing vessels.
- There is a **Medium** risk **inside** and **outside** MPAs from diving seabird bycatch.
- There is a **High** risk **inside** and **outside** MPAs from salmon bycatch.
- There is a **Medium** risk **inside** and **outside** MPAs from shad and lamprey bycatch.
- There is a **Medium** risk **inside** and **outside** of MPAs from the targeted removal of herring, part of the fish community assemblage of the Severn Estuary estuaries habitat feature.
- There is a **High** risk **inside** and **outside** of MPAs from the targeted removal of herring affecting harbour porpoise prey availability.

Environmental effects associated with UK MS Descriptors (Northern Ireland waters)

The results of an initial consideration of the available evidence and expert opinion of the main risks arising from the draft Irish Sea Pelagic FMP to UK MS Descriptors, are listed in Section 3 of this advice and are summarised below:

- There is a moderate risk to achieving GES for the biological diversity of cetaceans, seals, and birds, due to impacts from Pelagic fishing activities. Bycatch is likely to impact some species populations to the extent that it is contributing to the failure to achieve GES. However, though mobile species are typically considered sensitive to bycatch in static and drift net fisheries, there is insufficient resolution to determine the impact of pelagic drift net fisheries specifically. Although use of pelagic drift nets in the regions covered by the draft Irish Sea Pelagic FMP is likely to be limited, the lack of evidence to provide a confident assessment of bycatch risk suggests the risk is likely to be moderate. It is thought that pelagic gears are contributing relatively little to the failure of this indicator in relation to bycatch. However, owing to the importance of pelagic stocks within the Northern Ireland marine ecosystem, the potential to impact prey availability needs further consideration for pelagic fisheries. The FMP process presents an opportunity to further strengthen the ecosystem-based approach to fisheries management. This can help deliver the Ecosystem and Sustainability Objectives, maintaining target fish populations in a favourable condition while also contributing to the achievement of Good Environmental Status.

There is a moderate risk to marine litter. More robust estimates of abandoned, lost, or discarded fishing gear from pelagic fisheries are required.

Risks relating to UK Marine Strategy descriptors (English waters)

The main risks arising from the draft Irish Sea Pelagic FMP to UK MS Descriptors that have been identified in Section 3 of this advice are summarised below.

- There is a **moderate risk** to D1, D4 cetaceans, D1, D4 seals, D1, D4 seabirds through bycatch in pelagic trawls, ringnets, purse seines and pelagic drift nets.
- There is a **moderate risk** to D1, D4 cetaceans, D1, D4 seals, D1, D4 seabirds through targeted removal of herring, an important prey species.
- There is a **moderate risk** to D10 marine litter from pelagic trawls and drift nets due to abandoned, lost or discarded fishing gear.

Risks relating to UK Marine Strategy descriptors (Welsh waters)

To develop NRW's GES advice for Welsh waters, they considered the September 2023 advice produced by Natural England and JNCC for the draft Irish Sea Pelagic FMP. While the Natural England and JNCC GES advice for the draft Irish Sea Pelagic FMP applies to English waters, the analysis and assessment are considered applicable to Welsh territorial waters of the Irish Sea.

Some of the NRW risk ratings for GES may be different than those summarised above in their advice for the designated features of Welsh MPAs or to the GES risk ratings produced by Natural England and JNCC for English waters due to the status of the descriptors in Wales or the likelihood of the pressure occurring. GES assessments often consider activities that cause pressures across a larger geographic scale than MPAs and FMPs, can include fishing activities not occurring in Wales, comprise additional activities other than fishing, and include additional receptors within groupings e.g. all cetaceans and not just bottlenose dolphin and harbour porpoise.

- There is a **Moderate** risk to achieving GES for cetaceans, seals, seabirds (D1 & D4) through bycatch in pelagic trawls;
- There is a **High** risk to achieving GES for harbour porpoise (D1 & D4) and a **Moderate** risk to achieving GES for all other cetaceans (D1 & D4) through bycatch in fixed nets and drift nets;
- There is a **Moderate** risk to achieving GES for seals and seabirds (D1 & D4) through bycatch in fixed nets and drift nets;
- There is a **Moderate** risk to achieving GES for fish (D1 & D4) due to targeted removal and bycatch in pelagic trawls, fixed nets, and drift nets;
- There is a **High** risk to achieving GES for harbour porpoise (D1 & D4) through targeted removal of herring, an important prey species in pelagic trawls, fixed nets, and drift nets; and
- There is a **Moderate** risk of achieving GES for marine litter (D10) from pelagic trawls, fixed nets, and drift nets.

An iterative process across FMPs and over several FMP cycles will be required to establish the evidence base relating to fisheries and required action to achieve GES. It is suspected that some species bycatch pressures at a UK level may not be relevant to fishing occurring in Wales, but evidence is needed to confirm this.

Risks to Northern Ireland Priority Features

The Wildlife and Natural Environment Act (Northern Ireland) 2011 (hereafter referred to as WANE) is the primary tool for the conservation and protection of Northern Ireland's threatened or endangered wildlife. The Act requires the publication of biodiversity lists which are considered to be of conservation importance in Northern Ireland and outlines where public bodies must take steps as far as reasonably practicable to further their conservation. "Priority Features" is the collective term for those features listed within the Northern Ireland Habitats and Species lists protected under WANE, however DAERA created the Priority Marine Feature (PMF) List¹⁵, which is the collective term for marine features (habitats, limited/low mobility species, highly mobile species, geological / geomorphological features) of nature conservation importance in the Northern Ireland inshore region.

The results of an initial consideration of the main risks to Priority Features also echo the assessment for MPA features, albeit covering an additional suite of features. The results of our assessment are summarised here.

- As discussed above for MPA features, pelagic fisheries are not expected to pose a substantial risk of bycatch; however, evidence gaps remain resulting in a precautionary rating. Addressing evidence gaps through ongoing monitoring and research or, where necessary, through enhanced data collection will improve confidence in the assessment of bycatch risks.
- Pelagic trawls present a further bycatch risk for many fish and elasmobranch species listed as Priority Features, including several long-lived species and threatened species with an increased vulnerability to bycatch mortality. For listed fish which are also commercial stocks, risks of bycatch may be mitigated through their own stock management processes, but significant gaps in the available evidence remain. Risks for marine mammals and seabirds listed as Priority Features from pelagic trawls are likely to echo the risks outlined above for MPA features. **The risk rating for bycatch in pelagic trawls is assessed as moderate for marine mammals, seabirds, fish and elasmobranchs listed as Priority Features.** Risk to seabirds and marine mammals from bycatch in static and drift nets echo the assessment of risk outlined above for MPA features, with an additional risk to fish/elasmobranchs. There is **a moderate risk of mobile species bycatch in static and drift nets.** Continued monitoring

¹⁵ <https://www.daera-ni.gov.uk/sites/default/files/publications/doe/marine-report-guidance-on-selection-designation-of-mczs-in-ni-inshore-region-2014.PDF>

and enhanced data collection and research to address knowledge gaps may allow us to reassess this risk in future.

Several marine predators listed as Priority Features under WANE, in addition to those species designated as MPA features, are likely to utilise herring at various life stages as a prey resource. Herring stocks managed through the draft Irish Sea Pelagic FMP are considered key prey species for a broad range of predators and as such, are an important part of the marine ecosystem around Northern Ireland waters. The draft Irish Sea Pelagic FMP as a targeted fishery for herring, is likely to impact the availability of herring to marine predators listed as Priority Features under WANE. However, the extent to which these Priority Features are reliant on herring is less clear.

Recognising a potential impact pathway but lacking sufficient evidence to provide a confident conclusion, we advise that the risk of prey depletion to Priority Features from pelagic fisheries be considered moderate. Work done by the draft Irish Sea Pelagic FMP to ensure fisheries meet the precautionary and stock sustainability objectives of the Fisheries Act will help to ensure that exploited stocks are fished sustainably, but additional consideration of predator needs is recommended.

Climatic Factors

Vessels fishing for Irish Sea haddock, cod, whiting, plaice, sole, and Nephrops contribute to the total carbon emissions at sea each year by the UK's fishing fleets. While the estimated emissions by the UK fishing fleet represents a small proportion of overall emissions in the UK, decarbonising the fleet and moving towards net zero will help reduce the contribution of fisheries activities to climate change.

No conclusive evidence is currently available on the impact of fishing activity for Irish Sea demersal species on organic carbon stocks. However, the impact of towed demersal gear on blue carbon is of concern. Improved recording of the intensity of fishing using this gear on the seabed more broadly will help any future assessment of any effects on organic carbon stocks when the evidence base on blue carbon habitats in UK waters improves.

Cultural Heritage

Fishing activity can have both positive and negative effects on marine heritage assets. The positive effects relate to the discovery of marine heritage assets during fishing activity, with both past and future discoveries or findspots often reliant on fishing gear interactions. Negative effects can be caused by physical disturbance to cultural heritage on and within the seabed. Specific effects include: impeded access and interpretation of assets by fishing gear (e.g. nets, lines and ropes) collecting around physical structures; direct damage of assets by gear, usually towed gear, causing irreparable alteration to physical structures; burial of archaeological material by sediment during fishing practices; removal of the archaeological material from the

seabed during fishing practices; and transferal of archaeological material from its original place on the seabed during fishing practices. Avoiding negative interactions with marine heritage assets will help to conserve them for their enjoyment by future generations.

Benthic towed gear has been identified to cause damage to marine heritage assets. Historic England have evidence of two recent examples of damage from fishing activity to designated heritage assets, the Klein Hollandia (aka Eastbourne Wreck, LEN [1464317](#)) and the Rooswijk (LEN [1000085](#)).

The marine historic environment also plays an important role in providing ecosystem services in relation to nature conservation, sea angling, recreational diving and commercial fishing. Marine heritage assets, particularly ship and plane wrecks, can provide habitats for marine life, with fish often aggregating around them for refuge or to feed. Avoiding negative interactions with marine heritage assets that act as habitats can positively contribute to the conservation of the wider marine environment.

4. Relevant Plans, Programmes and Environmental Protection Objectives

The draft Irish Sea Pelagic FMP has broad application since it covers an activity that occurs across Northern Ireland, Welsh, and English waters. Consequently, the plan will interact with a range of established national legislation, plans and programmes, and international agreements and declarations signed by the UK.

The draft Irish Sea Pelagic FMP applies to Northern Ireland, Welsh, and English waters, therefore, when preparing FMPs, the relevant fisheries policy authorities are required to have regard to this existing regulatory structure.

The sections below set out those plans, programmes, and environmental protection objectives that the fisheries policy authorities consider relevant to the implementation of the draft Irish Sea Pelagic FMP. This FMP could interact with other relevant plans and projects. Any cumulative impacts will also be considered in any future assessments ahead of implementing measures.

International

The draft Irish Sea Pelagic FMP has had regard to the commitments the UK has made under the following international agreements and declarations during its preparation:

- [Trade and Cooperation Agreement \(TCA\) between the EU and the UK](#)
- [UN Fish Stocks Agreement 1995](#)

- [UN Convention on the Law of the Sea \(UNCLOS\)](#)
- [UN Sustainable Development Goals](#)
- [UN Convention on Biological Diversity \(CBD\)](#)
- [Convention on the Conservation of Migratory Species of Wild Animals \(CMS\)](#)
- [RAMSAR Convention](#)
- [Convention on International Trade in Endangered Species of Wild Fauna and Flora \(CITES\)](#)
- [Convention for the Protection of the Marine Environment of the Northeast Atlantic \(OSPAR\)](#)
 - The OSPAR Quality Status Report is a key resource when looking at the environmental impact of fisheries in the Northeast Atlantic.
- Regional Fisheries Management Organisations (RFMOs): The UK is an independent Contracting Party to [NEAFC – Northeast Atlantic Fisheries Commission](#) relevant to stocks being managed through the FMP.
- [Convention for the Protection of the Archaeological Heritage of Europe](#)
- [Convention for the Protection of the Architectural Heritage of Europe](#)
- [North Atlantic Salmon Conservation Organisation \(NASCO\)](#)
- [EU Western Waters Multi-Annual Plan - REGULATION \(EU\) 2019/472 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL](#)

Domestic

The draft Irish Sea Pelagic FMP has had regard to the following national legislation, plans and programmes during its preparation:

Marine Protected Areas

FMPs are required by law to consider the implications of the fishing activity they manage for designated sites, primarily Marine Protected Areas (MPAs). Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) are protected under the Conservation of Habitats and Species Regulations 2017, known as the Habitats Regulations. Marine Conservation Zones (MCZs) are protected by the Marine and Coastal Access Act 2009.

The MPA network [covers 38% of UK waters](#). Relevant or public authorities (including fisheries regulators) assess human activities that could interact with the designated features of MPAs, seek the advice of the SNCBs and introduce management where required. The draft Irish Sea Pelagic FMP will support the management of fishing activity in MPAs. When implementing any actions arising from the FMP that overlap with SACs and SPAs and MCZs or their designated features, an assessment will be undertaken prior to implementation, to assess the likely effects of the action on the conservation objectives of the site.

Marine regulators also have responsibilities relating to Sites of Special Scientific Interest (SSSIs) under the Wildlife & Countryside Act 1981 and Natural Environment & Rural Communities Act 2006. Ramsar sites (wetlands of international importance), designated under the Ramsar Convention, are often underpinned by SSSIs but are afforded the same protection at a policy level as SACs and SPAs. [Appendix C](#) lists the different types of MPA and relevant designations in the UK.

Highly Protected Marine Areas - England

Highly Protected Marine Areas (HPMAs) are areas of the sea (including the shoreline) that allow the protection and full recovery of marine ecosystems. By setting aside some areas of sea with high levels of protection, HPMAs will allow nature to fully recover to a more natural state, allowing the ecosystem to thrive.

HPMAs will protect all species and habitats and associated ecosystem processes within the site boundary, including the seabed and water column. For large HPMAs, resultant displacement may lead to the intensification of fisheries pressure that will require assessing and potentially addressing if unduly exacerbating existing pressures.

The first three HPMAs designations in English waters came into force on 5 July 2023. The three sites are:

- Allonby Bay
- Northeast of Farnes Deep
- Dolphin Head

Any actions arising from the FMP that overlap with HPMAs will comply with the conservation objectives for designated features.

Conservation of Habitats and Species Regulations 2017 and Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019

The [Conservation of Habitats and Species Regulations 2017](#) include provisions for: protecting sites that are internationally important for threatened habitats and species (European marine sites) and provide a legal framework for species requiring protection (European protected species). [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019](#) sets out changes to made to the 2017 Regulations to ensure the regulations operate effectively in Northern Ireland, English and Welsh waters. The draft Irish Sea Pelagic FMP will support the protection of protected sites and species.

The Conservation of Offshore Marine Habitats and Species Regulations 2017

[The Conservation of Offshore Marine Habitats and Species Regulations 2017](#) include provisions for the designation and protection of areas that host important habitats and species in the offshore marine area. The draft Irish Sea Pelagic FMP will support the protection of offshore marine habitats and species.

The Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (as amended)

[The Conservation \(Natural Habitats, etc.\) Regulations \(Northern Ireland\) 1995](#) include provisions for transposing the Habitats Directive (Council Directive [92/43/EEC](#) on the conservation of natural habitats and of wild fauna and flora) into Northern Ireland law. After the EU exit, amendments were made by [The Conservation \(Natural Habitats, etc.\) \(Amendment\) \(Northern Ireland\) \(EU Exit\) Regulations 2019](#) to legislation regarding biodiversity protection and water. The draft Irish Sea Pelagic FMP will support the conservation of marine habitats and species.

Marine Strategy Regulations 2010 – UK wide

The [Marine Strategy Regulations 2010](#) requires Administrations in the UK to take action to achieve or maintain Good Environmental Status (GES) in UK waters. The UK Marine Strategy (UK MS) is a key pillar of marine policy in the UK. There is a clear link between the UK MS and the 'ecosystem objective' of the Fisheries Act 2020 – sections 1(4) and 1(10).

The Marine strategy part one: UK initial assessment and good environmental status outlines an initial assessment of our seas and characteristics, targets and indicators of GES in UK seas.

The Marine strategy part two: UK marine monitoring programmes outlines the monitoring programmes for measuring progress towards GES in UK seas.

The [UK Marine Strategy Part Three: Programme of Measures](#) identifies FMPs as a tool to support the delivery of GES for commercial fisheries (Descriptor 3). It also recognises FMPs could, where appropriate include 'measures to mitigate the impact of fishing activity on the wider environment, including the seabed' to support the delivery of GES for other descriptors.

Marine Plans – UK wide

The [Marine and Coastal Access Act 2009 \(MCAA\)](#) makes provision for the [UK Marine Policy Statement \(MPS\)](#), published 2011, and requires (together with the [Marine Act \(Northern Ireland\) 2013](#)) the production of marine plans where the MPS is in place.

The MPS provides the framework for marine plans around the UK and sets the high-level policy context for marine planning, including setting high-level marine objectives. Under MCAA s.58, decisions relating to the marine area should be taken in line with the Marine Plan. The draft Irish Sea Pelagic FMP considers the relationship between marine spatial planning and fishing activity being managed through FMPs, and how these policies can work in a joined-up way to ensure more effective use of the marine space and resources. Further information on the marine plans in Northern Ireland, Wales, and England is provided in Appendix D.

The Environment Act 2021 – UK Wide

The [Environment Act 2021](#) sets out the UK's commitment to protect and enhance our environment for future generations. The act seeks to improve air and water quality, protect wildlife, increase recycling and reduce plastic waste. A central pillar is an obligation for policy makers to have due regard to five environmental principles (integration principle, prevention principle, rectification at source principle, polluter pays principle, precautionary principle) during the development of policy. Policy goals developed through the draft Irish Sea Pelagic FMP will have due regard to these principles. Further details of the environmental principles can be found at [Environmental Principles Gov.uk page](#).

The Environment Act 2021 also requires the government to publish an [Environmental Improvement Plan \(EIP\)](#) for England. The EIP published in 2023 builds on the 25 Year Environment Plan by setting out how the government in England will work with landowners, communities and businesses to deliver goals for improving the environment. FMP policy supports the EIP by enabling the development of fisheries management tools that will contribute to securing clean, healthy, productive and biologically diverse oceans and seas. Through implementing a sustainable domestic fisheries policy, the draft Irish Sea Pelagic FMP will deliver measures to secure healthy stocks that will be fished in an environmentally sustainable manner.

The Environment Act 2021 also makes provision for legally binding targets of which the targets for biodiversity and Marine Protected Areas will relate to FMPs. In addition, public authorities who operate in England must consider what actions they can take to conserve and enhance biodiversity in England. This obligation is the strengthened '[biodiversity duty](#)' that the Environment Act 2021 introduced. The draft Irish Sea Pelagic FMP will comply with the biodiversity duty.

Climate Change Act 2008 – UK Wide

The [Climate Change Act 2008](#) is the basis for the UK's approach to tackling and responding to climate change. It requires that emissions of carbon dioxide and other greenhouse gases are reduced and that climate change risks are adapted to. The Act also establishes the framework to deliver on these requirements. The draft Irish Sea

Pelagic FMP will support policies to meet targets to achieve net zero by 2050 as set out in the legislation.

Marine wildlife bycatch mitigation initiative – UK Wide

The [Marine wildlife bycatch mitigation initiative](#) outlines how the UK will achieve its ambitions to minimise and, where possible, eliminate the bycatch of sensitive marine species. This initiative brings together, and builds on, existing work such as the UK Bycatch Monitoring Programme and [Clean Catch UK](#), recognising that further actions need to be taken if we are to achieve our objectives. The draft Irish Sea Pelagic FMP will support this initiative by contributing to mitigating the negative impacts of fishing activity as appropriate.

The Planning (Environmental Impact Assessment) Regulations (Northern Ireland) 2017

[The Planning \(Environmental Impact Assessment\) Regulations \(Northern Ireland\) 2017](#) implement provisions on the assessment of the effects of certain public and private projects on the environment.

The Wildlife (Northern Ireland) Order 1985

[The Wildlife \(Northern Ireland\) Order 1985](#) prohibits the intentional killing, taking or injuring of certain wild birds and wild animals or the intentional destruction, uprooting or picking of certain wild plants.

The Environment (NI) Order 2002

[The Environment \(Northern Ireland\) Order 2002](#) is a statutory framework that places obligations on individuals and organisations to protect and manage the environment. The purpose of the Order is to: (a) provide a statutory framework to enable transposition of the requirements of EC Directives 96/61 on Integrated Pollution Prevention and Control (the IPPC Directive) and 96/62 on Ambient Air Quality Assessment and Management; (b) make additional provision for the prevention and control of environmental pollution; and (c) introduce measures to allow for the better protection and management of Areas of Special Scientific Interest (ASSIs).

The Order provides Northern Ireland legislation broadly similar to that already in operation in Great Britain in the Environment Act 1995 (Part IV), the Pollution Prevention and Control Act 1999, and the Countryside and Rights of Way Act 2000.

Wildlife and Natural Environment Act (NI) 2011 (WANE)

[The Wildlife and Natural Environment Act \(Northern Ireland\) 2011](#) (WANE) amends the above Wildlife (NI) Order 1985 and The Environment (NI) Order 2002 with provision to protect a greater range of wild fauna, flora, and habitats, and increase protection to Areas of Special Scientific Interest (ASSIs). This is the primary tool for the conservation and protection of Northern Ireland's threatened or endangered wildlife. The Act requires every public body to promote the conservation of biodiversity and defines functions of public bodies in Northern Ireland with respect to the conservation of biodiversity.

The Act also requires the publication of biodiversity lists which are considered to be of conservation importance in Northern Ireland and outlines where public bodies must take steps as far as reasonably practicable to further their conservation. The list of Northern Ireland Priority Habitats and Species (collectively referred to as 'Priority Features' in this Environmental Report document) can be found on the DAERA webpages ([DAERA, 2015](#) and [DAERA, 2023](#), respectively). The risks to the Priority Features are being considered in the draft Irish Sea Pelagic FMP.

Towards an Integrated Coastal Zone Management Strategy for Northern Ireland 2006-2026

[Towards and Integrates Coastal Zone Management Strategy for Northern Ireland 2006-2026](#) (ICZM) seeks to reconcile the different policies that have an effect on the coast, and to establish a framework that facilitates the integration of the interests and responsibilities of those involved in the development, management and use of the coast.

Planning (NI) Act 2011

[The Planning \(NI\) Act 2011](#) makes provision relating to planning in Northern Ireland. The Act covers various topics such as forestry, land, soil, mineral resource, waste and hazardous substances. The planning system has three main functions: development planning, development management, and enforcement. Under the Act, responsibility for delivering the majority of operational planning functions passed to local councils in April 2015.

Historic Monuments and Archaeological Objects (NI) Order 1995

[The Historic Monuments and Archaeological Objects \(NI\) Order 1995](#) provides for the protection of historic monuments and archaeological objects.

Archaeology 2030, A Strategic Approach for Northern Ireland

[Archaeology 2030](#), A Strategic Approach for Northern Ireland, was launched in 2020 with a strategic vision for the future – for archaeology to be accessed and valued by as many people as possible, led by a sector which is healthy, resilient and connected.

Department for Communities ‘Conservation Principles’ guidance

Department for Communities ‘[Conservation Principles](#)’ guidance for the sustainable management of the historic environment in Northern Ireland sets out a best practice conservation framework for all aspects of decision making affecting our historic environment.

The Strategic Planning Policy Statement (SPPS) for Northern Ireland

[The Strategic Planning Policy Statement \(SPPS\) for Northern Ireland](#) sets out the Department’s regional planning policies for securing the orderly and consistent development of land in Northern Ireland under the reformed two-tier planning system. The existing suite of [Planning Policy Statements \(PPSs\)](#) and the remaining provisions of ‘A Planning Strategy for Rural Northern Ireland’ are currently retained under the transitional arrangements of the SPPS. It should be noted that PPSs will be superseded by Local Development Plans when they are adopted.

Retained PPSs set out the policies of the Department of the Environment Northern Ireland (the Department) on particular aspects of land-use planning and apply to the whole of Northern Ireland. Their contents will be taken into account in preparing development plans and are also material to decisions on individual planning applications and appeals. The following PPS are of relevance:

- [Planning Policy Statement 2 ‘Natural Heritage’ \(PPS2\)](#) sets out the Department’s planning policies for the conservation, protection and enhancement of our natural heritage. For the purpose of this Planning Policy Statement, natural heritage is defined as “the diversity of our habitats, species, landscapes and earth science features”.
- [Planning Policy Statement 18 ‘Renewable Energy’ \(PPS18\)](#) sets out the Department’s planning policy for development that generates energy from renewable resources and that requires the submission of a planning application.

Environment Strategy and Environment Improvement Plan

The [Environment Strategy](#) is an overarching document setting out Northern Ireland’s environmental priorities for the coming decades and forms part of the Green Growth agenda (the Green Growth Strategy will provide more detail on actions in respect of climate change & greenhouse gas emissions)

The [Environmental Improvement Plan for Northern Ireland](#) is the first published Environment Strategy and forms the basis for a coherent and effective set of interventions that can deliver real improvements in the quality of the environment and thereby improve the health and well-being of all who live and work here; elevate Northern Ireland to an environmental leader; create opportunities to develop our economy; and enable us to play our part in protecting the global environment for decades to come.

It includes a mix of both existing and new environmental objectives, targets and actions for DAERA and other departments with a role in improving the environment.

Draft Green Growth Strategy

The draft [Green Growth Strategy](#) sets out an ambitious vision and a framework for delivery with which all other NI government policies and strategies must align. It provides us with a vitally important opportunity to embed wider climate change, a green economy and environmental considerations into decision making.

The Climate Change Act (Northern Ireland) 2022

[The Climate Change Act \(Northern Ireland\) 2022](#) sets a target of an at least 100% reduction in net zero greenhouse gas (GHG) emissions by 2050 (i.e., net zero emissions by 2050) for Northern Ireland compared to baseline, along with interim targets including an at least 48% reduction in net emissions by 2030. DAERA must also, by June 2024, review and potentially set updated 2030 and 2040 interim emissions reduction targets to ensure that they are in line with the 2050 net zero target.

The Act also sets other sectoral targets including 2030 targets at least 80% of electricity consumption from renewable sources (DfE) and 70% of waste is recycled (DAERA) as well as a target for a minimum spend of 10% of overall transport budgets on active travel (DfI).

Northern Ireland Energy Strategy 2050

Energy accounts for almost 60 per cent of Northern Ireland's greenhouse gas emissions. The [Northern Ireland Energy Strategy 'Path to Net Zero Energy'](#) sets out a pathway for energy to 2030 that will mobilise the skills, technologies and behaviours needed to take us towards our vision of net zero carbon and affordable energy by 2050.

The Environmental Targets (Biodiversity) Regulations 2023 - England

[The Environmental Targets \(Biodiversity\) Regulations 2023](#) set long-term targets in respect of three matters within the priority area of biodiversity under section 1 of the

[Environment Act 2021 \(c. 30\)](#). These Regulations also set a target in relation to the abundance of species in accordance with section 3 of the Environment Act 2021. The Regulations specify the standard to be achieved in respect of each target and the date by which it must be achieved. The draft Irish Sea Pelagic FMP will support achieving the targets set out in the regulations as appropriate.

The Environmental Targets (Marine Protected Areas) Regulations 2022 – England

[The Environmental Targets \(Marine Protected Areas\) Regulations 2022](#) set a long-term environmental target under section 1 of the [Environment Act 2021 \(c. 30\)](#). The target set by regulation 3 is in respect of the condition of protected features in marine protected areas. These Regulations specify the standard to be achieved in respect of the target and the date by which it must be achieved. The draft Irish Sea Pelagic FMP will support achieving the targets set out in the regulations.

Water Environment Regulations (Water Framework Directive)

The Water Environment (Water Framework Directive) (England & Wales) Regulations 2017 (referred to as the WFD Regulations) provide a framework for assessing and managing the water environment, which includes estuaries and coastal waters in England. The draft Irish Sea Pelagic FMP will support achieving the targets for water quality set out in the regulations.

[River Basin Management Plans \(RBMPs\)](#) produced under the Water Environment Regulations provide the overarching framework for to help protect and improve our water environment. RBMPs extend out to 1 nautical mile from the baseline into the marine environment and seek to maintain or restore Good Ecological Status¹⁶. The draft Irish Sea Pelagic FMP will support the objectives in the relevant RBMPs to meet Good Ecological Status.

Well-being of Future Generations (Wales) Act 2015 and the Environment (Wales) Act 2016

All activities undertaken as part of the development of the draft draft Irish Sea Pelagic FMP will be in line with the Well-being of Future Generations (Wales) Act 2015. Welsh Ministers, as a public body, have a duty to work to improve the social,

¹⁶ Good ecological status (GES) is a metric for assessing the health of the water environment. It is assigned using various water flow, habitat and biological quality tests. Failure to meet any one individual test means that the whole water body fails to achieve good ecological status. Source: Department for Environment, Food and Rural Affairs (DEFRA) ([WQR0028](#))

economic, environmental and cultural well-being of Wales, by taking action in accordance with the sustainable development principle.

Wales has a legal framework that provides for the sustainable management of natural resources and requires public bodies to carry out sustainable development to meet well-being goals. This framework includes some of, but is not limited to, the five environmental principles such as integration, precautionary and prevention. These are defined in the [Well-being of Future Generations \(Wales\) Act 2015](#) with accompanying [statutory guidance](#) and the [Environment \(Wales\) Act 2016](#).

Environment (Wales) Act 2016

All activities undertaken as part of the development of the draft Irish Sea Pelagic FMP will be in line with the [Environment \(Wales\) Act 2016](#). Welsh Ministers, as a public body, have a duty to work to improve the social, economic, environmental and cultural well-being of Wales, by taking action in accordance with the sustainable development principle.

Section 6 of the Environment (Wales) Act 2016 requires that public authorities must seek to maintain and enhance biodiversity [of the Section 7 habitats and species] so far as consistent with the proper exercise of their functions and in so doing promote the resilience of ecosystems. The draft Irish Sea Pelagic FMP will support the requirements of the Act.

Welsh National Marine plan 2019

[Welsh National Marine plan 2019](#) provides a statutory policy framework to help guide the development of the Welsh Marine area includes cross-cutting socio-economic environmental policies under specific areas of the Marine and Coastal Access Act.

Assessing Welsh Fishing Activities (AWFA) - Evaluation of fishing activity interactions with features of Welsh Marine Protected Areas (MPAs).

Assessing Welsh Fishing Activities (AWFA)-Welsh Government are working in partnership with Natural Resources Wales, its statutory nature conservation advisor, to undertake a structured evaluation of fishing activity interactions with features of Welsh Marine Protected Areas (MPAs).

Other FMPs

The fisheries authorities considered the interaction between the published FMPs and draft plans whilst drafting this FMP. The draft Irish Sea Pelagic FMP proposes management for herring and will have relevance for other pelagic FMPs, particularly

those operating in the same region due to the interconnectivity of stocks, shared fishing techniques and the potential for bycatch.

The draft Irish Sea Pelagic FMP will interact with the following other FMPs; North Sea and Channel Sprat FMP, Celtic Sea and Western Channel Pelagic FMP, Northern Shelf Mackerel FMP, Atlanto-Scandian Herring FMP, North Sea Herring FMP, West Coast of Scotland (and Clyde) Herring FMP, North Sea Greater Silver Smelt FMP, Northern Shelf Blue Whiting FMP, and the North Sea Horse Mackerel FMP.

The draft Irish Sea Pelagic FMP proposes management on pelagic species (herring), whereby interconnectivity of stocks will likely mean management in one FMP will influence the other.

The interaction between FMPs will be considered when monitoring the effectiveness of plans. Any necessary adaptations would be built into the plan's ongoing implementation and adjusted in future revisions of the FMP.

Other Localised Plans

[Explore Marine Plans \(EMP\)](#) is an online interactive tool developed by the Marine Management Organisation (MMO) to allow a user find and view spatial marine activity data for the English marine area, information on marine planning licences relating to a specific area, and marine plan policy information.

The draft Irish Sea Pelagic FMP will use this tool to identify where the plan could interact with other relevant marine activities, plans or projects. Any necessary adaptations would be built into the plan's ongoing implementation and contribute to future revisions of the FMP.

5. Assessment of Environmental Effects

The environmental baseline information (Section 3) shows that the marine environment is subject to a range of pressures from human activities, including climate change. Fishing-related activities form only part of the contribution of these pressures to the current state of our marine environment.

The present assessment acknowledges the evidence that shows those pressures that are largely derived from fishing activity and can impact the marine environment directly. Fishing can also contribute to other environmental effects when considered in combination with other processes and activities.

Section 5 assesses the environmental effects of the policy goals and actions of the draft Irish Sea Pelagic FMP in relation to the environmental issues screened into this SEA, and where applicable their associated UK MS descriptors (Table 3).

Overview of the Potential Positive and Negative Environmental Effects of the Policy Goals, Actions and Measures of the draft Irish Sea Pelagic FMP

The potential positive and negative environmental effects of implementing goals (considering the actions that sit under them) and measures of the draft Irish Sea Pelagic FMP have been identified in below.

Table 4. High-level assessment of the positive and negative environmental effects of the draft Irish Sea Pelagic FMP goals.

Policy goal	Actions to achieve policy goals	Positive effects	Negative effects
Harvest Irish Sea herring sustainably with biomass restored and maintained above the level capable of producing MSY	- Continue to take an approach to TAC setting that is sustainable, informed by the best available scientific advice, and in line with an MSY approach. - Continue to work with EU partners through international negotiations with the aim of maintaining the sustainable harvesting of the stock and appropriate access. - Use effective fisheries management measures, consulting on and disseminating solutions as issues arise. This includes supporting and adhering to spawning ground closures, effective enforcement and	These actions will ensure that herring stocks are fished within sustainable limits. Improvements to the stock assessment data and process will reduce uncertainty and inherent risks associated with setting sustainable catch limits. Relevant SEA Issues: - Biodiversity, fauna, flora (UK MS - D1, D3, D4, D6) - Climatic factors	Levels of realised fishing effort may fluctuate in response to changes in catch limits. Increased fishing effort may incur additional impacts on the wider environment. Relevant SEA Issues: - Biodiversity, fauna, flora (UK MS - D1, D3, D4, D6) - Water (UK MS - D10, D11) - Climatic factors

Policy goal	Actions to achieve policy goals	Positive effects	Negative effects
	supporting the development of appropriate gear technology.		
Use the best available scientific evidence to support management decisions relating to the setting of sustainable fishing opportunities	• Ensure the best scientific advice is available for management decisions by contributing to and participating in the international stock assessment process, notably through the provision of high-quality data. • Seek a benchmarking process for the Irish Sea herring assessment as a UK priority. • Improve the evidence base for herring stocks including supporting work to determine if and how exploitation of fish stocks outside of the FMP area is affecting the Irish Sea herring stock within the FMP area and vice versa. • Evaluate current data gathering protocols to identify means of improving data provision, consistency, and identifying any critical data and knowledge gaps. Explore further options for assessing stock(s) or exploitation status.	These actions, while important, will not by themselves have a positive effect on the environment. However, it will allow for more informed management decisions in the future that could result in improvements across a range of receptors and ultimately contribute to the sustainable management of targeted stocks. This may have indirect benefits for wider environment, for example food webs and biodiversity. Relevant SEA Issues: • Biodiversity, fauna, flora (UK MS - D1, D3, D4, D6) • Geology/sediments (UK MS - D6) • Water (UK MS - D10, D11) • Climatic factors	These actions, while important, will not by themselves have a negative effect on the environment. However, it will allow for more informed management decisions. The intention of these would be to have a positive impact, but there could be unintended negative effects, resulting from spatial changes in fishing effort. Field surveys could result in negative effects on the environment if impacts are not adequately considered during the planning stage. Data collection and processing needs to be considered alongside proposed management actions as in isolation it will not prevent the associated fisheries from declining further if overfishing is taking place or reduce environmental impacts associated with fishing activity.

Policy goal	Actions to achieve policy goals	Positive effects	Negative effects
	- Build partnerships between stakeholders and UK Research and Innovation (UKRI) institutes to ensure that: - research is targeted at answering management questions, - research is peer reviewed, - industry is engaged with and consulted, - data is made available to support evidence-based fishery management, and - both fishery-dependent and independent data are fully utilised. - Regularly engage with representative groups (including NIFPO and ANIFPO) on how best to utilise scientific evidence published by ICES. Consult directly with fishermen on firsthand data to improve stock assessment and fisheries management accuracy.		Relevant SEA Issues: - Biodiversity, fauna, flora (UK MS - D1, D3, D4, D6) - Geology/sediments (UK MS - D6) - Water (UK MS - D10, D11) - Climatic factors

Policy goal	Actions to achieve policy goals	Positive effects	Negative effects
Deliver wider sustainable management by taking steps to minimise the impact of Irish Sea herring fisheries on the marine ecosystem	Short term actions • Fisheries policy authorities will allocate additional quota in line with the requirements of the Act, paying due regard to the need to incentivise low impact fishing. • Continue to implement fisheries management measures for existing MPAs, and consider the need for any new actions. Measures should complement the conservation objectives. • Continue to work with industry and other stakeholders on a range of management initiatives such as: ○ Protecting spawning and nursery areas of the stocks, ○ Monitoring and review of the Irish Sea herring fishery to improve environmental and economic sustainability, and ○ Rollout of REM to key parts of the UK fishing fleet to improve data	These actions are expected to deliver broader environmental benefits, including improvements to biodiversity and food webs. By promoting low-impact fishing techniques, the use of REM, and better handling of sensitive marine species, these actions are expected to contribute to more sustainable practices and enhance stock and sensitive marine species recruitment. Improved understanding and mitigation of bycatch also contribute positively, particularly to biodiversity and the condition of MPAs. While some measures may not have direct positive environmental effects, they enable more informed management decisions that can lead to long-term ecological gains. Relevant SEA Issues: • Biodiversity, fauna, flora (UK MS - D1, D3, D4, D6) • Geology/sediments (UK MS - D6)	No immediate negative effects are anticipated. However, these actions may have unintended negative effects if they eventually lead to management that reduces opportunities and could lead to spatial changes in fishing pressure to other places within the FMP area or beyond. Data collection and processing needs to be considered alongside proposed management actions as in isolation it will not prevent the associated fisheries from declining further if overfishing is taking place or reduce environmental impacts associated with fishing activity. Relevant SEA Issues: • Biodiversity, fauna, flora (UK MS – D1, D3, D4, D6) • Geology/sediments (UK MS - D6) • Water (UK MS - D10, D11) • Cultural Heritage

Policy goal	Actions to achieve policy goals	Positive effects	Negative effects
	and monitoring of catch and interactions with sensitive marine species. - Support data collection under the UK Bycatch Mitigation Initiative to improve understanding of risk and frequency of sensitive species interactions; the effectiveness of existing mitigation and avoidance measures; and implement improvements. This includes the addition of seabirds and mammals to observer data collection forms, supporting the Seabird Conservation Strategy and Action Plan. Long term actions - Explore avenues to protect and enable recovery of habitats identified as important to herring from the pressures that pose risks to them, including certain fishing practices and other marine activities.	- Water (UK MS - D10, D11) - Cultural Heritage - Climatic factors	

Policy goal	Actions to achieve policy goals	Positive effects	Negative effects
	- Continue and support, where possible, new work to deliver an increased understanding of benthic disturbance and impacts. For example, seafloor litter, surface litter and beach litter. - Support and encourage existing good practice within the fishing industry in relation to the handling of sensitive and/or vulnerable marine species and the returning of them to the sea unharmed. - Support ongoing research initiatives to support the reuse and repurpose of end-of-life fishing gear back into the fishing industry. - Fisheries authorities to continue to engage with the Isle of Man Department of Environment, Food and Agriculture (DEFA) on important spawning grounds within Isle of Man territorial waters to ensure continued protection.		

Policy goal	Actions to achieve policy goals	Positive effects	Negative effects
Support the fishing industry to deliver socio-economic and cultural benefits for rural and coastal communities	Continue to gather evidence on economic aspects of the fishery to ensure management decisions are informed by the best available evidence. Maintain current open access to all UK registered vessels. Short term actions - Continue to take account of socio-economic factors as part of the international negotiations and setting of fishing opportunities. - Continue to gather evidence on economic aspects of the fishery to ensure management decisions are informed by the best available evidence. - Encourage and support where possible innovation and growth of the sector. - Incentivise sustainable practices through the allocation of additional quota where evidence supports a sustainable application.	Including social, economic and cultural importance in fisheries management is consistent with ecosystem-based approaches and can lead to improved governance and environmental outcomes. Funding innovation within the fishery could lead to improved practices that reduce bycatch and benthic disturbance. Mitigating benthic impacts in herring spawning grounds is likely to have a positive effect on seafloor integrity. Relevant SEA Issues: - Biodiversity, fauna, flora (UK MS - D1, D3, D4, D6) - Geology/sediments (UK MS - D6) - Cultural Heritage	No immediate negative effects are anticipated, however if social, economic and cultural importance are considered in isolation, fisheries management approaches may have negative environmental consequences. If stock health is compromised, current levels of access could potentially hinder the fishery's sustainability. Additionally, the associated impacts on bycatch and benthic ecosystems remain relevant. If stock negotiations lead to agreed management or quotas that reduce opportunities, that may lead to spatial changes in fishing effort that increases fishing pressure outside the scope of the relevant FMP (area and/or species). If these actions lead to management that increases opportunities within the plan area, the increase in pressure could have a negative impact on the wider environment.

Policy goal	Actions to achieve policy goals	Positive effects	Negative effects
	Long term actions - Monitor and assess the Irish Sea herring fisheries to better understand the social and economic value provided to the coastal communities within the FMP area. - Consider schemes within the scope of this FMP that support pelagic fisheries in response to external pressures and other marine uses.		These actions may have unintended negative effects if they eventually lead to management that lead to spatial changes in marine activities to other places within the FMP area or beyond. Relevant SEA Issues: - Biodiversity, fauna, flora (UK MS - D1, D3, D4, D6) - Geology/sediments (UK MS - D6) - Water (UK MS - D10, D11) - Climatic factors
Minimise the impact of fish activities on climate change and support the fishing industry to adapt to climate change	Short term actions - Ensure that Irish Sea herring is considered within wider iterative research to examine the likely impacts of climate change on herring fisheries, spawning areas, food sources and their connective links within the wider ecosystem. - Collaboration across government, industry, and academic sectors on initiatives to reduce the environmental impact of Irish Sea herring	Although this action will have no immediate positive effects on the environment, the increased understanding will ultimately support better management which will help achieve sustainability goals. This goal will support the development of climate change mitigation and adaptation measures for Irish Sea herring fisheries. This will improve understanding of the contribution to climate change impacts the	Any unintended reduction in fishing opportunities could lead to spatial changes in fishing effort and increased fishing pressure elsewhere. Any change in fishing practices as mitigation could introduce a different set of pressures that may have negative effects. Relevant SEA Issues: - Biodiversity, fauna, flora (UK MS - D1, D3, D4, D6) - Geology/sediments (UK MS - D6)

Policy goal	Actions to achieve policy goals	Positive effects	Negative effects
	fisheries, including reducing CO₂ emissions, greater fuel efficiency and alternative vessel fuels. - Continue to gather and develop evidence of the impacts that Irish Sea herring fisheries have on the marine environment (including CO₂ emissions) through collaborative studies. Long term actions - Evaluate the most appropriate mechanism for integrating information on the effects of climate change on FMP stocks and fisheries into fisheries management, including stock assessments and advice on fishing opportunities. - Build on the work carried out by WKIrish on the impacts of climate change on zooplankton and the large zooplankton index, which was identified as a key driver in herring stocks.	Irish Sea herring fishery has, helping to reduce the impact that Irish Sea herring vessels have on the marine environment. Maintaining collaboration across government, industry, and academic sectors can lead to more coordinated efforts in reducing the environmental impacts of fisheries. This holistic approach can foster the development and implementation of innovative solutions that promote sustainable fishing practices and contribute to reducing carbon footprints across the sector. Relevant SEA Issues: - Biodiversity, fauna, flora (UK MS - D1, D3, D4, D6) - Geology/sediments (UK MS - D6) - Climatic factors	- Water (UK MS - D10, D11) - Climatic factors

Policy goal	Actions to achieve policy goals	Positive effects	Negative effects
	Evaluate and support the roll-out of new technologies and practices to decarbonise the fleet and build resilience, in line with the carbon budgets established under the Climate Change Act.		

Overview of Potential Positive Environmental Effects of the FMP

Biodiversity, Flora, Fauna, Geology and Sediments, Water quality

The overarching aim of the draft Irish Sea Pelagic FMP is to deliver long-term sustainable management of herring fisheries in the International Council for the Exploration of the Sea (ICES) area 7a North of 52°30'N (Irish Sea) in Northern Ireland, Welsh, and English waters.

Fishing opportunities for herring are managed by total allowable catches (TACs). These, and other joint management measures, are set through international negotiations guided by the best available scientific advice, balancing environmental, social, and economic factors. There is sufficient available scientific evidence to make annual MSY assessments for herring. Therefore, this FMP describes how management can continue to maintain an MSY approach for this fisher, highlighting research areas that could lead to refinements to management approaches in the future.

Securing the long-term sustainable harvesting of herring stocks across Northern Ireland, Welsh, and English waters could:

- Help reduce the risk of herring stocks being overexploited.
- Reduce fishing-related mortality which may help Irish Sea herring populations become more resilient to environmental change which could benefit marine ecosystem function and biodiversity; and
- Help control species removal from food webs.

The FMP includes measures to continue existing management which already contributes to managing the impact of herring fishing on Irish Sea herring stocks and the wider environment. The FMP also sets out a number of actions to collect new data to support management of Irish Sea herring fisheries to ensure robust and sustainable management, contributing to the sustainability objective in the Fisheries Act 2020.

The FMP includes policy goals seeking to better assess the interactions with the marine environment and potential impacts associated with Irish Sea herring fisheries and develop an action plan to reduce damaging impacts, particularly on herring spawning grounds. This will allow evidence-based measures to be developed to mitigate impacts.

The FMP acknowledges the impact Irish Sea herring fisheries have on bycatch and entanglement of designated MPA and Priority features, primarily through bycatch in passive nets. It includes policy goals seeking to better assess bycatch associated with the fishery, which should allow the introduction of measures to reduce bycatch of non-

target and protected species over the long-term if required. It also links the FMP to existing initiatives such as the Bycatch Mitigation Initiative.

The FMP acknowledges the potential impact to the marine environment by fishing related marine litter.

Continuity and development of measures to manage harvesting of Irish Sea herring within sustainable limits (set out on in section 1 and assessed in section 5), will help contribute to the achievement of GES for Commercial fish (D3) for the UK MS by seeking to ensure that target stocks are harvested sustainably. The FMP's proposed interventions to develop better evidence on bycatch and the contribution of Irish Sea herring fishing related litter should positively contribute to achieving GES for descriptors D1, D4, D6 and D10.

The authors of the draft Irish Sea Pelagic FMP considered advice from SNCBs on the risks posed by fishing for Irish Sea herring when developing and implementing the management measures set out in the FMP. Considering the wider impacts on the marine environment at the FMP preparation stage should lead to more informed management interventions that could have a positive effect on the environment.

The FMP adopts an ecosystem-based approach to fisheries management to help deliver environmental, social and economic benefits beyond those accrued from just achieving the sustainable harvesting of stocks.

Climatic factors

The draft Irish Sea Pelagic FMP acknowledges that the UK seafood sector will need to consider how it will reduce emissions to contribute to meeting the Net Zero target. The draft FMP has not proposed any actions to reduce emissions at this stage. However, the FMP supports policy development to reduce the contribution of fisheries activities to climate change, support the adaptation of the fishery, and will contribute to building an improved understanding of how climate change is influencing the Irish Sea herring stock dynamics.

Policy goal 5 and associated actions relating to supporting research and collaboration to assess climate change impacts, ecosystem connections, and environmental effects of fisheries, including CO₂ emissions, are not expected to have immediate positive effects on the environment or contribute to the net zero target. However, the increased understanding and enhanced collaboration can lead to more coordinated efforts and foster the development and implementation of innovative solutions which will help achieve sustainability goals.

The FMP acknowledges the climate change impacts on Irish Sea herring stocks and fisheries and signposts to existing national programmes that collect data on the effects of climate change. In addition, the FMP sets out policy goals to address existing

evidence gaps related to climate changes on Irish Sea herring and how it proposes to move towards climate adaptive management. These actions will help the Irish Sea herring fishery adapt to climate driven changes in the distribution of stocks and help identify opportunities to decarbonise the fleet and move towards net zero, making vessels more fuel efficient and generally less polluting. This will contribute to the climate objective in the Fisheries Act 2020.

Cultural heritage

While the FMP is not intended to focus on mitigating the impacts of fishing on marine heritage assets, fisheries management could contribute to safeguarding these assets and their locations. In addition, there is the potential for positive interactions to arise between fishing and cultural heritage. A degree of fishing disturbance can lead to some heritage assets being revealed and investigated, thereby improving the knowledge base.

Fisheries management that reduces adverse effects on habitats and seabed features, for example through gear design and spatial closures, could indirectly help to conserve both known and unknown marine heritage assets. However, further consideration of mitigating any impacts on these features may need to be considered.

Managing stocks so they are harvested in a sustainable way can have environmental, social and economic benefits. Ensuring a fishery is environmentally, socially and economically sustainable over the long term could help promote the cultural importance of herring fishing and preserve the cultural heritage of fishing itself including wrecks of fishing vessels, historic harbours and infrastructure, and fishing communities.

The SEA process will highlight to fisheries policy authorities how herring fisheries management policy goals and actions could support measures that protect the historic marine environment and improve early reporting of previously unknown sites.

Overview of Potential Negative Environmental Effects of the FMP

Biodiversity, Flora, Fauna, Geology and Sediments, Water quality, Climatic factors, Cultural heritage

Acknowledging that the proposed policy goals and actions are at the beginning stages of their development, the assessment of likely negative effects identified a low risk of significant adverse effects on biodiversity, flora, fauna, water quality, and cultural heritage from implementing individual policy goals and actions. However, there remains uncertainty. In particular, we do not yet know the potential environmental

effects of implementing the combination of actions set out in the draft Irish Sea Pelagic FMP.

Nevertheless, the fisheries objectives which will guide our actions should deliver improved environmental protection, so although it is difficult at this stage to anticipate all the potential significant negative effects on the environment in the short term, the overall ambition is to have a positive effect on the environment over the long term through the implementation of an ecosystem-based approach to fisheries management. From an MPA perspective, any changes in management will be subject to MPA assessments which will ensure MPA features are protected inside and outside sites.

There is the potential for factors such as the spatial footprint, intensity, type of gear and fishing methods of the Irish Sea herring fishery to alter through publishing the FMP and implementing its policy goals and actions. We recognise that management interventions brought in through FMPs may solve one issue, but unintended and unpredictable issues could arise because of the measures being implemented. For example, it is acknowledged that some of the proposed actions to support the FMP policy goals may, through interventions intended to have a positive effect, lead to displacement of fishing activity to other locations or into fisheries. This may result in negative environmental effects that fall outside the scope (area or species) of this FMP. Where an FMP cannot solve an issue, it may be appropriate for other FMPs to consider this issue. Or, if areas beyond Northern Ireland, Welsh, and English waters are affected, it may be appropriate for this issue to be considered through wider UK or international fisheries management fora.

This section has identified potential negative effects that could arise from the implementation of the FMP's policy goals and actions. Due to the policy goals and actions being at an early stage of development it is difficult to systematically set out their magnitude and significance, without further detail on the nature, timing, duration, scale or location of the proposed actions. Changes to fishing activity resulting from the implementation of the FMP policy goals and actions should be monitored as part of the process of evaluating the effectiveness of FMPs. Tools such as iVMS and VMS greatly improve, or could improve, our ability to monitor spatial and temporal changes in fishing effort. Such monitoring would help identify any unintended consequences on the environment and indicate whether the implementation of these actions could lead to any significant environmental effects if unmanaged. Mitigating action could then be considered where any significant negative effects are identified, that are related to those issues scoped into this assessment.

In-combination Effects

The draft Irish Sea Pelagic FMP could potentially have positive or negative in-combination effects with other programmes to deliver sustainable fisheries (see section

4). Whilst these other programmes focus on different topics, there are common themes that positively link them together. For example, FMPs and the Marine Plans share the common principles of managing marine resources sustainably and reducing the impact of anthropogenic pressure on the marine environment. Having due regard to the Environmental Principles during the development of policy will further ensure that the environment will be appropriately considered throughout the FMP process. More broadly, we anticipate the cumulative positive effect of these programmes will result in helping to meet sustainability objectives and achieving long-term improvements to the marine environment.

Undertaking the in-combination assessment at this stage in the production cycle of the FMP proved difficult due to the policy goals and actions being at an early stage of development. The assessment of the likely negative effects of the individual policy goals and actions in section 5 identified a low risk of significant adverse effects on the environment and therefore no amendments are needed ahead of publishing the FMP. When considering the combined effect of other potential policies, we are not aware at this stage that any other regimes/activities are going to change that position.

The FMP could facilitate the in-combination assessment with Marine Plans in this SEA, by providing more specific detail on how the FMP could positively or negatively interact with them. However, a Marine Plan assessment will be undertaken on the finalised FMP policy goals prior to publication, to assess how they will interact with Marine Plan policies. The assessment will identify whether an FMP policy goal will be compliant, potentially conflict, or not be compliant with Marine Plan policies. The interaction between FMPs and Marine Plans will be further considered when monitoring the effectiveness of plans. Any necessary adaptations, to ensure FMPs and Marine Plans interact positively, would be built into the plan's ongoing implementation and adjusted in future revisions of the FMP as required.

Before there are any changes to fisheries management as a result of the draft Irish Sea Pelagic FMP, where necessary, all new measures will be subject to Habitats Regulations Assessments and Marine Conservation Zone assessments. Such assessments will consider the potential in-combination effects with other plans and projects that are occurring or will occur within in an MPA. These assessments will also identify where any specific interactions exist.

The combined effect of implementing the policy goals and actions of all FMPs will be considered through the mandatory FMP monitoring process once the plan is published and could form part of the longer-term JFS or FMP review cycles (see section 8).

Conclusions

Irish Sea herring fishing is an ongoing activity that poses some risks to the quality status of the marine environment. The draft Irish Sea Pelagic FMP focuses on achieving the sustainable harvesting of Irish Sea herring stocks and therefore will reduce the risks to the future status of Irish Sea herring stocks in the long-term giving positive benefits to the environment. Nevertheless, we acknowledge that fishing for Irish Sea herring within sustainable limits may not remove all the associated negative effects of that fishing activity on the wider marine environment.

The Fisheries Objectives (in the Fisheries Act 2020) require FMPs to integrate environmental, social and economic aspects of a fishery when introducing interventions to control fishing activity within sustainable levels. Achieving the balance between these three elements will be a central component of making a positive contribution to the sustainability objective. The FMP takes a precautionary approach to fisheries management and adopts a balanced and proportionate approach towards delivering the fisheries objectives.

The FMP may result in positive and negative effects on the environment in the short term, with the overall ambition to have a positive effect on the environment over the long term through the implementation of the ecosystem-based approach to fisheries management.

The FMP sets out how the issues of spawning habitat disturbance and bycatch and will be addressed through the FMP. While this will not result in immediate positive environmental benefits or environmental improvements, it should help determine what mitigation may be required. The FMP recommends using additional evidence to develop robust mitigation strategies and be used to support the national bycatch strategies.

The FMP does not specifically consider the impacts of fishing on marine heritage assets. However, fisheries management aimed at reducing wider environmental effects could indirectly help to conserve both known and unknown marine heritage assets. This iteration of the FMP focuses on setting out actions to achieve sustainable harvesting of Irish Sea herring stocks but there is scope for future iterations of the FMP to address this wider issue.

6. Proposed Measures to Reduce Significant Negative Effects

Existing Negative Effects of Irish Sea Herring Fishing

This ER has acknowledged the existing negative environmental effects associated with the fishing activity which will be managed through the FMP. The actions proposed by the FMP to reduce negative effects are set out below.

The known impacts of this Irish Sea herring fishing activity include bycatch of sensitive, mobile, and/or non-target species, depletion of prey for sensitive mobile species, litter/ghost gear affecting habitats and species, vessel emissions on climate, and the impact on cultural heritage sites.

Biodiversity, Flora, Fauna, Geology and Sediments (soil), Water quality

Measures currently being implemented to manage Irish Sea herring fishing (set out in the draft Irish Sea Pelagic FMP - Current fishery management) include fishing activity/effort limits, technical measures and protection of juvenile/spawning Irish Sea herring through MCRS. These measures will be part of the overall management strategy and will make a contribution to the conservation of stocks and the wider environment.

The herring in Division 7.a North of 52°30'N (Irish Sea) stock assessment is a category 1 assessment by ICES. The draft Irish Sea Pelagic FMP proposes a series of short- and long-term technical measures to maintain the Irish Sea herring stocks above the level capable of producing MSY. This plan brings together all existing management measures for Irish Sea herring along with all available science and evidence, and highlights where gaps exist and what is required to fill those gaps to enable the necessary protection for stocks now and in the long term. This approach aims to maintain sustainable harvesting of Irish Sea herring stocks, which will benefit the wider marine environment.

The draft Irish Sea Pelagic FMP has considered advice from SNCBs with respect to the impacts from Irish Sea herring fishing activity on MPA features and the wider marine environment in relation to UK MS descriptors and Priority Features. The draft Irish Sea Pelagic FMP has set out the following proposed actions to reduce those known negative effects below.

Impacts within MPAs

The MPA network (see Appendix C) is protected through the existing MPA management process by managing human activities such as fishing to avoid likely significant effects on the environment. These activities are mainly controlled through the powers vested in DAERA, the IFCAs, the MMO, and Welsh Government to develop fisheries management legislation.

Before DAERA, Welsh Government, and Defra implement any new management interventions proposed in the draft Irish Sea Pelagic FMP, those interventions will be screened for likely significant effects on any Special Areas of Conservation or Special Protection Areas that overlap with the geographical scope of the measure and, where necessary, a further appropriate assessment completed in accordance with the Conservation of Habitats and Species Regulations 2017, the Conservation of Offshore Habitats and Species Regulations 2017, or the Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995. In accordance with the Marine and Coastal Access Act 2009, Marine Conservation Zone (MCZ) assessments will also be completed before any new management measure is implemented that may significantly hinder the conservation objectives of an MCZ. Consideration must also be given to the duties required under the Marine Act (Northern Ireland) 2013.

The points above will make sure the impacts of non-quota shellfish fishing activity and the FMP's policy goals and actions do not prevent our ability to meet the conservation objectives for MPA features for each site, and other targets in the Environmental Improvement Plan.

Environmental effects associated with designated features of MPAs

The marine environment outside of MPAs but within the spatial boundaries of this FMP may potentially be negatively impacted by Irish Sea herring fishing activities. SNCB advice highlighted the risk of bycatch of mobile species (birds, mammals and fish) that are designated features of MPAs where they occur out with sites. This bycatch was classified as moderate risk. The advice acknowledged that results from the Bycatch Monitoring Programme suggest that risks are lower for pelagic gears than for static nets. However, the assessment has a degree of precaution as substantial data gaps exist. The advice acknowledged the lack of high-quality bycatch data, which severely restricted both the ability to draw firm conclusions on mobile species bycatch risks for MPA features beyond site boundaries, and the ability to identify specific mitigation. The focus within the draft Irish Sea Pelagic FMP will be on improved data collection via the implementation of a catch recording scheme on larger vessels, including actions to rollout REM trials. These will support a higher-resolution assessment of risk and the design of appropriate mitigation, where necessary. The FMP also links specific data collection initiatives to wider bycatch monitoring and mitigation programmes such as the UK Bycatch Mitigation Initiative, which will ensure a joined-up approach. Such an

approach has the potential to appropriately mitigate risks associated with highly mobile MPA features.

The SNCB advice also highlighted the risk of prey reduction, through catching herring which is considered an important prey species. This was classified as moderate risk. The advice acknowledges a substantial amount of evidence that herring recruitment and production is primarily driven by environmental variation, such as temperature and prey availability. The FMP states that the temperature of the Irish Sea is changing, and recognises that the impact of climate change on the size composition and distribution of the Irish Sea herring stock is not yet fully understood. Additionally, there is uncertainty around potential mixing of herring stocks in the Irish Sea. The FMP proposes actions to grow the evidence base by collaborating across sectors and carrying out further research on the potential impacts of climate change on herring stock dynamics, spawning patterns, and prey availability, in the context of the wider ecosystem.

UK MS Descriptors Impacts

SNCB advice highlighted risks associated with bycatch in nets, this time in relation to where there may be a risk of population-level impacts on some UK MS descriptors, including cetaceans (D1, D4), seals (D1, D4) and birds (D1, D4). Reducing bycatch of sensitive and/or non-target species is complex and requires solutions that are tailored to the different fisheries. As discussed above, focus within the draft Irish Sea Pelagic FMP will be on improved data collection via the implementation of a catch recording scheme on larger vessels, including actions to rollout REM trials, to support a higher-resolution assessment of risk and the design of appropriate mitigation

Further data would help establish the location, scale, and risk of bycatch. Supporting existing programmes such as the UK Bycatch Mitigation Initiative will contribute to resolving the issue. Additional data through REM, a catch recording scheme, and encouraging participation in existing observer programmes, will increase our understanding and thereby allow better decision-making regarding mitigations on what and where mitigation may be required. Improving reporting pathways (for both fishermen and fisheries managers) and bycatch monitoring programmes will help improve understanding and our ability to determine whether any mitigatory action is necessary.

There is also ongoing work focusing on understanding and mitigating the impact of bycatch on the wider population being progressed through Defra's Marine wildlife bycatch mitigation initiative (BMI) and the Clean Catch UK programme. Further development of these programmes to ensure coverage of risks identified through this FMP are the most suitable route to mitigation.

SNCB advice highlighted the moderate risk to the UK MS descriptors D1, D4 cetaceans, D1, D4 seals, D1, D4 seabirds through targeted removal of Irish Sea

herring, an important prey species. The draft Irish Sea Pelagic FMP sets out the goal to continue to determine fishing opportunities in line with the MSY approach and in accordance with the best available scientific advice. Should MSY based advice not be available, fishing opportunities should be determined in accordance with a precautionary approach and the best available scientific advice. The FMP seeks to fill evidence and data gaps required for improved understanding of potential mixing between herring stocks in the Irish Sea and of the role of Irish Sea herring in the wider ecosystem.

Priority Features (Northern Ireland)

SNCB advice highlighted a moderate risk to Priority Features through bycatch of mobile species (marine mammals, birds and fish), and a reduction in the availability of herring as forage fish species. The draft Irish Sea Pelagic FMP sets out a goal to minimise the impact of Irish Sea herring fisheries on the marine ecosystem, which includes actions to improve evidence of bycatch for gear types used to target Irish Sea herring. This will support high-resolution assessments of impacts and provide the evidence base to consider appropriate mitigation measures. The FMP also links specific data collection initiatives to wider bycatch monitoring and mitigation programmes such as the UK Bycatch Mitigation Initiative, which will ensure a joined-up approach. Such an approach has the potential to have a significant positive effect on the current baseline status where research leads to new or improved mitigation and management.

Climate Change

Vessel Emissions

The draft Irish Sea Pelagic FMP acknowledges that whilst fishing vessels need to reduce emissions, there are no ready solutions currently available. The FMP proposes actions as part of policy goal 5 aimed at collaboration for reducing environmental impacts of the fisheries (including CO₂ emissions), improving the evidence base, and reviewing measures to making vessels more fuel efficient alongside exploring alternative vessel fuels. When new evidence around climate change impacts is developed that require any adaptation of the fishery, this will be integrated into the FMP. In the meantime, there are existing government schemes which are open to support the fishing sector in the transition to Net Zero and support businesses to adapt. DAERA, Welsh Government, and Defra are currently in the process of investigating existing carbon mitigating solutions and is collaborating across government and with stakeholders to support the development of pathways to Net Zero.

Climate change impacts on herring stocks and fisheries

The draft Irish Sea Pelagic FMP acknowledges there are already changes to the distribution and size composition of Irish Sea herring stocks as a result of climate change, but the overall impacts are not yet fully understood. Policy goal 5 specifically

looks at how the fishing industry can be supported to adapt to the impact of climate change. This includes actions on wider research to identify impacts of climate change on fisheries, including their links within the wider ecosystem, as well as identifying the impacts of the fisheries on the marine environment. Another component of the FMP will be to support the industry's adaptation to the impacts of climate change in addition to encouraging industry participation in initiatives to reduce CO₂ emissions. Future iterations of the FMP will be adapted as research into climate change develops and new methods to address climatic challenges arise.

Cultural Heritage

The draft Irish Sea Pelagic FMP does not explicitly consider the potential impacts of herring fishing activity on marine cultural heritage.

Historic England have developed a range of options designed to manage negative interactions between commercial fishing and the historic marine environment. DAERA, Welsh Government, and Defra should work with agencies such as Historic England, DfC Historic Environment Division, and Cadw to consider how measures that could protect the marine historic environment could be incorporated into fisheries management for future iterations. Considering appropriate measures to reduce negative interactions with marine heritage assets could strengthen the positive interactions between FMPs and cultural heritage and has the potential for the FMP to contribute to having a positive effect on the current baseline.

Effects identified by this assessment

The assessment of the likely negative effects of the policy goals and actions in section 5 identified a low risk of significant adverse effects on the environment from implementing individual policy goals and actions. Therefore, no changes to the proposed policy goals and actions are needed ahead of publishing the FMP. Where appropriate, the policy goals and actions will be developed and implemented to mitigate any potential negative effects identified by the current assessment.

The likely negative effects will also be considered when developing monitoring activities as part of the implementation process (see section 8), to ensure that any negative effects of the of the FMP's policy goals and actions individually or combined can be further reduced. Given the uncertainty as to the negative effects of implementing the individual policy goals and actions, monitoring changes to fishing activity resulting from the implementation of the FMP will help identify any unintended consequences on the environment that could subsequently lead to significant negative environmental effects. Where likely unintended environmental consequences are identified, appropriate changes to management or mitigation can be implemented to reduce to any negative environmental effects developing.

General

The UK is committed to using marine resources sustainably and reducing the impact of fishing on the marine environment to comply with its international and domestic obligations. The draft Irish Sea Pelagic FMP seeks to support these commitments by providing the tools (FMP policy goals and actions) to deliver the sustainable harvesting of herring stocks.

The range of environmental issues identified through this assessment have been considered by the draft Irish Sea Pelagic FMP. The FMP acknowledges that the evidence base is not sufficiently comprehensive at present to fully address many of the issues and therefore proposes a multi-step, iterative approach to deliver long-term sustainability through improving the evidence base. The FMP should remain flexible to adapt its policy goals and actions as new evidence on potential impacts of Irish Sea herring fishing emerge, particularly in relation to climate change.

This ER considers that the FMP has proposed all necessary actions to address existing issues and has appropriately considered how it will address potential issues arising from the implementation of the FMP's policy goals and actions. This ER has therefore not proposed any mitigations in addition to those already set out in the FMP.

7. Reasonable Alternatives

Regulation 12(2)(b) of the SEA Regulations 2004 requires the fisheries policy authorities to consider reasonable alternatives to the draft Irish Sea Pelagic FMP. A reasonable alternative has been defined as 'an activity that could feasibly attain or approximate the FMP's goals at a lower environmental cost or decreased level of environmental degradation'¹⁷.

Section 2 of the Fisheries Act 2020 requires the fisheries policy authorities to publish a JFS setting out how they will use FMPs to achieve, or contribute to achieving, the fisheries objectives. The JFS lists the planned FMPs, including the draft Irish Sea Pelagic FMP. This listing creates a legal requirement to prepare and publish the draft Irish Sea Pelagic FMP and does not allow for a reasonable alternative to producing an FMP unless a 'relevant change of circumstances', as set out in section 7 (7) of the Fisheries Act applies; we are not aware of any information that would invoke these circumstances.

The draft Irish Sea Pelagic FMP, alongside the other 43 FMPs was agreed by the fisheries policy authorities through the JFS publication process. Engagement across administrations took place via the processes outlined in the [Fisheries Framework](#).

¹⁷ [Reasonable alternatives definition](#)

Regular scrutiny of the emerging list of FMPs was built into every step of the JFS policy formation, and through this process credible alternatives to managing stocks without an FMP were considered. The list of FMPs, which included an FMP for Irish Sea herring, was part of the public consultation on the Joint Fisheries Statement in early 2022. There were no comments on the inclusion of an FMP for Irish Sea herring. Following consultation, an updated version of Annex A of the JFS was published in December 2024, introducing changes to the publication dates and technical details of several FMPs.

The Irish Sea herring fishery is an ongoing activity and management already exists. The draft Irish Sea Pelagic FMP seeks to maintain the current approach regarding the harvesting of Irish Sea herring stocks sustainably, alongside broader improvements through a Long-Term Management Strategy, and a focus on improving the evidence base, particularly on Irish Sea herring stock mixing. The FMP also seeks to promote the management of the fishery in a more coherent and coordinated manner that considers wider environmental issues. On that basis, the FMP will likely deliver greater environmental gain and will have a more significant positive impact on improving the current environmental baseline, compared to a 'business as usual' approach that only continues with existing fisheries management.

The draft Irish Sea Pelagic FMP policy goals and actions were developed to specifically address those fisheries management issues identified within the Irish Sea herring fishery.

A range of environmental issues (e.g., through SNCB advice, evidence relating to climatic change impacts) have been considered during the development of the current proposed policy goals and actions to ensure they have minimal negative environmental effects and where applicable maximum positive environmental gain. Stakeholder input, including that from the environmental sector has been considered during the development of policy goals and actions. These processes have been employed to ensure the most appropriate actions have been proposed for this stage in the life cycle of the FMP. An assessment of the potential alternatives to the proposed draft Irish Sea Pelagic FMP policy goals (considering the actions that sit under them) is provided in Table 5.

Table 5. Assessment of alternatives to proposed draft Irish Sea Pelagic FMP policy goals.

Policy goal theme	Policy goal	Alternatives
Sustainable fisheries	Harvest Irish Sea herring sustainably with biomass restored and maintained above the level capable of producing MSY.	Harvesting Irish Sea herring stocks in line with scientific advice is required to ensure the stocks are fished sustainably. No reasonable alternative is available.
Evidence	Use the best available scientific evidence to support management decisions relating to the setting of sustainable fishing opportunities.	This group of actions are focused on building upon the current data collection and scientific approach that is in place, with a particular focus on potential mixing of Irish Sea herring, Celtic Sea herring and other stocks. Scientific evidence is essential for delivering appropriate and sustainable fisheries management. No reasonable alternatives have been identified at this stage.
Management approach	Deliver wider sustainable management by taking steps to minimise the impact of Irish Sea herring fisheries on the marine ecosystem.	Understanding and minimising these impacts is an important part of delivering an ecosystem-based approach. Better information, from enhanced monitoring and reporting, is required to understand the detailed nature of bycatch to adequately mitigate impacts. Without this, it is not possible to design effective mitigation measures. No reasonable alternatives have been identified at this stage.

Policy goal theme	Policy goal	Alternatives
Social and economic	Support the fishing industry to deliver socio-economic and cultural benefits for rural and coastal communities.	This is considered a requirement for making appropriate management decisions. It allows management measures to be developed in partnership by those that will be impacted. This will allow for alternative management measures to be discussed and agreed upon in the future.
Climate change	Minimise the impact of fish activities on climate change and support the fishing industry to adapt to climate change.	Considering climate change issues is required to ensure the industry contributes to reducing its impact on the environment and is ready to adapt to the environmental impacts of climate change. Improving the evidence base on the impact of fishing on climate change, along with maintaining and enhancing cross-sector collaboration, is crucial for making informed, evidence-based management decisions. No reasonable alternative is available. Alternative options can be considered as detailed measures are drafted.

The proposed policy goals and actions set out in the FMP are therefore considered to be the most appropriate for this stage in its development.

The draft Irish Sea Pelagic FMP will develop through future iterations as the evidence base improves. Policy goals and actions will be adapted to ensure the most appropriate and effective management interventions are used to address contemporary issues. Where appropriate, additional measures will be developed as options for more targeted management become available, addressing a broader range of fisheries management issues in the long term.

The public will be consulted on the draft Irish Sea Pelagic FMP, alongside the consultation of this ER. These consultations will provide stakeholders with the

opportunity to review proposed policy goals and actions and present alternatives if available.

8. Monitoring and Review

Monitoring

Regulation 17 of the SEA Regulations 2004 requires the responsible authorities to monitor the significant environmental effects of the implementation of the draft Irish Sea Pelagic FMP policy goals and actions to identify unforeseen adverse effects at an early stage, ensuring appropriate remedial action can be undertaken. Paragraph 9 of Schedule 2 to the 2004 Regulations requires the Environmental Report to include a description of the measures envisaged concerning monitoring in accordance with regulation 17.

The types of relevant monitoring already undertaken or proposed by the FMP fall into two types:

- Monitoring the effectiveness of FMP goals and actions
- Environmental impacts monitoring

Monitoring effectiveness of the FMP

Section 6 of the Fisheries Act 2020 requires the FMP to identify appropriate monitoring against specified indicators to assess the effectiveness of the draft Irish Sea Pelagic FMP.

In reporting on the effectiveness of the draft Irish Sea Pelagic FMP, the fisheries policy authorities will follow a two-pronged approach:

- 1) The responsible authorities will report on levels of biomass, primarily using ICES reference points, to provide an indication of the overall health of the stock.
- 2) Individual policy goals and actions will be monitored and reported on. As part of the three year review cycle for the JFS, as set out under section 11 of the Fisheries Act (2020), each goal and action contained within the FMPs will be considered and reported on in relation to a) whether it has been implemented and b) any known interactions between the actions and health of the stock.

The draft Irish Sea Pelagic FMP identifies actions for each of its five policy goals (see section 1).

Delivery of the actions in this FMP will be monitored to assess the effectiveness of the plan. There is sufficient evidence to determine MSY for Irish Sea herring, and to assess the sustainability of this stock. Maintaining the approach of using best available scientific evidence to guide management decisions and continuing to work effectively

with Coastal State partners to ensure sustainable harvesting will be essential to the effectiveness of this plan. This recognises the limitations of the UK in the joint management of a stock where maintaining overall biomass may be beyond our control and also reflects the potential future variation as a result of climate change.

ICES stock assessments assess how fish populations have changed over time and the effect that fishing pressure is having on stocks. Key biological indicators are provided as reference points, which give indication towards their MSY, fishing pressure and spawning stock biomass. ICES produces stock assessments for both stocks covered by this FMP.

Fisheries policy authorities undertake a review of ICES stock assessments on an annual basis, to determine how stocks are performing against these reference points, and any other reference points provided within the advice. The health of the herring stocks will continue to be reviewed in this way as part of the ongoing negotiations cycle, utilising the ICES stock assessment process, and will also be reviewed on a more in-depth basis as part of the ICES benchmark process.

The FMP will take advantage of future datasets as set out in section 3.2.10 of the JFS, which outlines that a range of data and information will be gathered, including social, from sources such as fisheries-dependent sampling. The monitoring and evaluation framework for the FMP will continue to be developed and supported by the independent programme evaluation of the FMP Programme, which will produce a framework for evaluation of individual FMPs by the end of 2024.

In addition to the monitoring set out in the FMP, monitoring of the environmental effects of implementing the FMP's policy goals and actions will be undertaken by fisheries managers (DAERA, Welsh Government, Defra, MMO, and IFCAs). These actions may include;

- Monitoring changes in fishing activity e.g. changes in effort or the spatial and/or temporal patterns of fishing, resulting from the implementation of the FMP.

If any negative impacts are identified, fisheries managers should consider adjusting Irish Sea herring fishery management.

Environmental Impacts

MPAs

The conservation status of conservation sites, including SACs, SPAs, and MCZs is monitored by the SNCBs, and is reported under the Habitats Regulations and Marine and Coastal Access Act. Findings from these monitoring activities could be used to help indicate where potential risks or impacts associated with fishing activity being managed through the FMP are occurring. FMPs could act on this evidence to amend

its policy goals and actions to reduce or avoid these risks or impacts. Findings from these monitoring activities could also be used to indicate where FMP policy goals and actions are having a positive effect.

UK MS

The UK MS monitors and assesses the state of the marine environment against 11 descriptors. See section above for details on how monitoring the FMP will link into future assessments under the UK MS.

Priority Features (Northern Ireland)

In 2011, WANE (see section 4 for detail) placed a statutory duty on public bodies to conserve biodiversity. It called for the publication of biodiversity lists of species and habitats that are considered to be of conservation importance in Northern Ireland, and later DAERA created the Priority Marine Feature (PMF) List^{Error! Bookmark not defined.}. A subset of this list forms the basis of the Marine Conservation Zone (MCZ) designation programme, and these features will have received protection through the assessments required in advance of introducing legislation such as the Marine Protected Areas (Prohibited Methods of Fishing) Regulations (Northern Ireland) 2022.

Atmospheric emissions

The Climate Change Committee (CCC) was set up under the Climate Change Act 2008 to support the strategic aims of Defra and the devolved administrations and to independently assess how the UK can optimally achieve its emissions reductions goals. The Committee advises on the level of carbon budgets and submits annual reports to Parliament on the UK's progress towards targets and budgets. Evidence on the contribution of the UK Irish Sea herring fishing fleet has been considered in this SEA and would continue to be reviewed against the FMP goals as part of monitoring.

Review

The Fisheries Act 2020 requires the draft Irish Sea Pelagic FMP (once published) to be reviewed at least every six years; the Act requires a report on the FMP's progress to be included in the report on the JFS every three years. The formal review will assess how the FMP has contributed to the Irish Sea herring fishery harvesting within sustainable limits and the Fisheries Act objectives.

An earlier review may be triggered in light of a change to relevant evidence, international obligations, or wider events. The decision to review earlier will be taken by the fisheries policy authorities.

The results of monitoring the effectiveness of the draft Irish Sea Pelagic FMP will also contribute to the legally required process to review the JFS. The JFS report will set out

the extent to which each FMP has been implemented and has affected stock levels in the UK.

The findings of these reviews will inform the development of subsequent iterations of the draft Irish Sea Pelagic FMP. As part of the reporting and wider review processes, alternatives to management can be identified to ensure the draft Irish Sea Pelagic FMP delivers on its policy goals and actions, and wider environmental obligations.

The SEA Environmental Report will be periodically updated to reflect how the implementation of FMP policy goals and actions affect the environment. Such updating will ensure that the SEA remains up to date throughout the ongoing FMP process into the future.

Appendix A: Eleven Descriptors of the UK MS

D1 - Biological diversity (cetaceans, seals, birds, fish, and benthic habitats)

D2 - Non-indigenous species

D3 - Commercially exploited fish and shellfish

D4 - Food webs (cetaceans, seals, birds, and fish)

D5 - Eutrophication

D6 - Sea-floor integrity (benthic habitats)

D7 - Hydrographical conditions

D8 - Contaminants

D9 - Contaminants in fish and other seafood for human consumption

D10 - Litter

D11 - Introduction of energy, including underwater noise

Appendix B: Additional Baseline Information

D1 and D4 – Cetaceans

Cetaceans (whales and dolphins) are an important marine ecosystem component that contributes to overall levels of biodiversity (D1). In addition, as top predators, the abundance of cetaceans can also provide some understanding on how the food web is functioning (D4).

To meet Good Environmental Status, the high-level objective is that ‘the population abundance of cetaceans indicates health populations that are not significantly affected by human activities’. However, according to the 2019 updated [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#), the overall status of cetaceans in the North Sea and Celtic Seas is currently uncertain. The baseline environmental condition with respect to cetaceans is therefore one where some degree of recovery is potentially required to meet GES. For more information, read [UK MS Cetaceans assessment](#).

A summary of the status is shown in Table A1. When considering the detailed targets and indicators used to make the assessment, the data suggests some are in line with GES in some geographic areas. But for many others, the results are either unclear or insufficient data is available to make an assessment. It should be noted that the indicators used do not always cover the entire breadth of what is set out in the target. For instance, the bycatch assessment is currently primarily driven by looking at harbour porpoise. The indicators can be developed in the future as more evidence is available.

Table A1. Detail from the 2019 UK MS assessment on descriptor [D1](#); [D4](#): Cetaceans. Taken from [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#) and the [UK MS Marine Online Assessment Tool](#).

Target	Indicator	North Sea	Celtic Seas
The long-term viability of cetacean populations is not threatened by incidental bycatch	Harbour porpoise bycatch	GES achieved	GES status uncertain

Target	Indicator	North Sea	Celtic Seas
There should be no significant decrease in abundance caused by human activities	Abundance and distribution of coastal bottlenose dolphins	GES achieved	GES status uncertain
There should be no significant decrease in abundance caused by human activities	Abundance and distribution of cetaceans other than coastal bottlenose dolphins	GES partially achieved	GES status uncertain
Population range is not significantly lower than the favourable reference value for the species	Abundance and distribution of coastal bottlenose dolphins	GES achieved	GES status uncertain
Population range is not significantly lower than the favourable reference value for the species	Abundance and distribution of cetaceans other than coastal bottlenose dolphins	GES partially achieved	GES status uncertain

Current impact of fisheries on the baseline condition

Fishing is one of several anthropogenic activities that are considered relevant to this ecosystem component. Other pressures include noise impacts from offshore infrastructure such as renewable energy and pollution from a range of sources. More information on relevant pressures is provided in section 2.6.1 of the [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#).

Cetacean bycatch

There is a specific target associated with the impact of bycatch from fisheries on the viability of cetacean populations. In the 2019 UK MS assessment, only data on the bycatch of Harbour Porpoise was used. This estimated that bycatch in the North Sea was below the precautionary threshold of 1% of the population estimate (and therefore

meeting the indicator target), but above this threshold for the Celtic Seas. It was, however, below the less precautionary 1.7% of population estimate. Whether the target was being met in the Celtic Seas was therefore uncertain. For more detail on the assessment, read [UK MS harbour porpoise bycatch assessment](#).

More recent analysis for the 2023 OSPAR quality status report (which uses the same indicator as the UK MS) shows that bycatch of harbour porpoise in the Greater North Sea and Irish & Celtic seas are exceeding the threshold. Bycatch of common dolphin is also exceeding the threshold. For more details, read [OSPAR Marine Mammal By-catch assessment](#). As this is a common indicator for both OSPAR and UK MS, that suggests that an updated UK MS assessment would no longer be seen as meeting this target.

Using the latest evidence from the UK Bycatch Monitoring Programme by Kingston et al (2021)¹⁸, it is specifically net fisheries (for example, gill nets, tangle nets etc) that are largely responsible for both harbour porpoise and common dolphin bycatch.

Cetacean abundance and range targets

For coastal bottlenose dolphins, the indicator target of 'no statistically significant decrease in abundance' was met in the Greater North Sea and for the largest group in the Celtic Seas (in the Coastal Wales assessment unit). No assessment has been possible for the other two smaller Celtic Seas Groups (in the West Coast assessment unit and Coastal Southwest assessment unit). For more information, read [UK MS Abundance and distribution of coastal bottlenose dolphins assessment](#).

For species other than coastal bottlenose dolphins, the indicator target of 'no significant decline' was met for some species in some areas (minke whale in the Greater North Sea), but for most species and all of the Celtic Seas, there was insufficient evidence to make an assessment. For more information, read [UK MS Abundance and distribution of cetaceans other than coastal bottlenose dolphins assessment](#).

Without this information, it is difficult to understand the potential impact fisheries could currently be having (alongside impacts from other industries or factors such as pollution) and if fisheries impacts are a scale of concern. Aside from bycatch (which is considered separately), the mechanism by which certain fisheries could theoretically be impacting on abundance and distribution would be through the removal of prey species important to cetacean species. At high levels, this could potentially lead to population-level impacts.

18 Kingston, A., Thomas, I. and Northridge, S. (2021) [UK Bycatch Monitoring Programme Report for 2019](#). Sea Mammal Research Unit.

Cetacean summary

The status of cetaceans with both the North Sea and Celtic Sea is mixed. While there are some aspects that are in line with the achievement of GES, much of the picture is unclear. The impact of various net fisheries is leading to bycatch that, in places, might be impacting long term population viability of harbour porpoise.

Other than for a limited number of coastal bottlenose dolphin populations, it is unclear whether the abundance and range of most cetacean species can be considered in line with GES. Fisheries and the removal of prey species is one of several activities / pressures that have the potential to result in changes in cetacean abundance and distribution.

D1 and D4 – Seals

The UK has achieved its aim of GES for grey seals in the Greater North Sea and Celtic Seas. There was a significant increase in the abundance of harbour seals in West Scotland where most harbour seals are located, but their status in other parts of the Celtic Seas is uncertain. Harbour seals in the Greater North Sea have not yet achieved GES.

Seals are an important marine ecosystem component that contributes to overall levels of biodiversity (D1). In addition, as top predators, seal productivity can also provide some understanding and insight as to how the food web is functioning (D4).

To meet Good Environmental Status, the high-level objective is that 'the population abundance and demography of seals indicate healthy populations that are not significantly affected by human activities'. According to the [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#), the UK has achieved its aim for GES for grey seals in the Greater North Sea and Celtic Seas. For harbour seals, there has been a significant increase in abundance in West Scotland where most harbour seals are located but their status is uncertain in other parts of the Celtic Seas and below what is required for GES in the Greater North Seas. For more information, read, [UK MS seal biodiversity assessment](#).

A summary of the current status is shown in Table A2. It should be noted that the current indicators used do not always cover the entire breadth of what is set out in the targets. For instance, there was no indicator developed or used as part of the 2019 assessment for bycatch.

Table A2. Detail from the 2019 UK MS assessment on descriptor [D1; D4: Seals](#). Taken from [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#) and the [UK MS Marine Online Assessment Tool](#).

Table notes:

Note 1: For this indicator, read [OSPAR Marine Mammal By-catch assessment 2023](#).

Target	Indicator	North Sea	Celtic Seas
The long-term viability of seal populations is not threatened by incidental bycatch.	Marine mammal bycatch (OSPAR) ^{Note1}	Not applicable	Not applicable
Population abundance and distribution are consistent with favourable conservation status.	Grey seal abundance and distribution	GES achieved	GES achieved
Population abundance and distribution are consistent with favourable conservation status.	Harbour seal abundance and distribution	GES not achieved	GES status uncertain
Grey seal pup production does not decline substantially in the short or long-term.	Grey seal pup production (OSPAR)	GES achieved	GES achieved

Current impact of fisheries on the baseline condition

Fishing is one of several anthropogenic activities that are considered relevant to marine mammals. Other pressures include noise impacts from offshore infrastructure such as renewable energy and pollution from a range of sources. More information on relevant pressures is provided in section 2.6.1 of the [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#).

Seal bycatch

The 2019 UK MS assessment suggests a new target on bycatch mortality will be used in the future. Seal bycatch was not considered within the 2019 assessment. Grey

seals are one of the three marine mammal species regularly recorded during the UK Bycatch Monitoring programme. Figures for seals (grey and harbour) are combined but the majority are thought to be greys. In the 2018 report¹⁹ the authors were fairly confident that all seals observed in gillnets were greys. Harbour seals (referred to as common seals in the report) are rarely caught and numbers are too low to generate a useful bycatch estimate separately. The gears that pose the most risk to grey seals appears to be tangle and trammel nets, which was estimated to account for over 90% of seal bycatch in 2019²⁰.

The most recent OSPAR quality status reports assessment on marine mammal bycatch²¹ (which is likely to feed into the next round of UK MS assessments), concludes that although grey seal bycatch is high, bycatch in 2020 was below the threshold value set and therefore not thought to be demographically significant. This suggests that in an updated UK MS assessment, seal bycatch is not likely to be threatening the long-term viability of the population and the bycatch target will be met.

Seal abundance and production

The 2019 UK MS assessment reports that grey seal numbers have continued to increase. Increases in grey seal pup production has slowed since the rapid increase following the end of culling in the 1970s, but still shows a positive trend. This is line with GES. Harbour seal abundance has increased over both the short and long term in the English Channel and along the East Coast of England. But there have been short-term and long-term declines in parts of Scotland. The cause of the declines is not currently known. For more information, read [UK MS seal biodiversity assessment](#).

Seals summary

Grey seals populations and productivity continues to increase, and targets are being met. Bycatch (largely in tangle and trammel nets) is occurring but not at levels that threaten population viability. For harbour seals, the status is not in line with GES where population declines have occurred in some areas. The cause is unknown. It is not thought to be linked to bycatch as occurrences are rare and there is no indication that it is linked to other pressures associated with fishing.

19 Northridge, S., Kingston, A. and Thomas, I. (2019) [Annual report on the implementation of Council Regulation \(EC\) No 812/2004 during 2018](#). Sea Mammal Research Unit).

20 Kingston, A., Thomas, I. and Northridge, S. (2021) [UK Bycatch Monitoring Programme Report for 2019](#). Sea Mammal Research Unit.

21 [Marine Mammal By-catch](#)

D1 and D4 – Birds

The UK has achieved its aim of GES for non-breeding waterbirds in the Greater North Sea but not in the Celtic Seas. Breeding seabirds have not achieved GES.

Seabirds are well monitored species that are an important marine ecosystem component that contributes to overall biodiversity (D1). In addition, as top predators, the abundance of birds can also provide some understanding and insight as to how the wider food web is functioning (D4).

To meet Good Environmental Status, the high-level objective is that 'the abundance and demography of marine bird species indicate healthy populations that are not significantly affected by human activities. According to the [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#), GES has not been achieved for seabirds in the Greater North Sea and the Celtic Seas and the situation is declining, evidenced by increasing breeding failure rates. The baseline environmental condition with respect to birds is therefore one where some recovery is required to meet GES. For more information, read [UK MS marine bird biodiversity assessment](#).

A summary of the current status is shown in Table A3. It should be noted that the current indicators used do not always cover the entire breadth of what is set out in the targets. For instance, although there are plans for target about bycatch, there was no indicator developed or used as part of the 2019 assessment.

Table A3. Detail from the 2019 UK MS assessment on descriptor [D1; D4: Birds](#). Taken from [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#) and the [UK MS Marine Online Assessment Tool](#).

Table notes:

Note 1: For this indicator, read [OSPAR Pilot Assessment of Marine Bird Bycatch 2023](#).

Target	Indicator	North Sea	Celtic Seas
The long-term viability of marine bird populations is not threatened by deaths caused by incidental bycatch catch in mobile and static fishing gear.	Under development (Note1)	Data not available	Data not available
The population size of species has not declined substantially since 1992 as a result of human activities.	Marine bird abundance	GES not achieved	GES not achieved

Target	Indicator	North Sea	Celtic Seas
Widespread lack of breeding success in marine birds caused by human activities should occur in no more than three years in six.	Marine bird breeding success/failure	GES not achieved	GES partially achieved
Widespread lack of breeding success in marine birds caused by human activities should occur in no more than three years in six.	Kittiwake breeding success²²	GES not achieved	Not assessed
There is no significant change or reduction in population distribution caused by human activities.	Distribution of breeding and non-breeding marine birds	Not assessed	Not assessed
There is no significant change or reduction in population distribution caused by human activities.	Invasive mammal presence on island seabird colonies	Not assessed	Not assessed

Current impact of fisheries on the baseline condition

Fishing is one of several anthropogenic activities that are considered relevant to this ecosystem component, including incidental bycatch and competition for resources (for example, sandeel fishing). Other pressures include mortality due to renewables, disturbance from a range of activities, oil pollution, and transfer of non-indigenous species to islands from ships. More information on relevant pressures is provided in section 2.6.1 of the [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#).

Bird populations size and breeding success

In the 2019 UK MS assessment, population targets were met for non-breeding water birds in the Greater North Sea but not in the Celtic Seas. Population targets for

²² Kittiwake breeding success has only been achieved for the English mainland colonies. GES for Kittiwake breeding success has not been achieved for the entire North Sea region due to breeding failures in Orkney and Shetland.

breeding seabirds were not met for breeding seabirds in either sub-region. In both sub-regions, a quarter or more species showed frequent and widespread breeding failures. Surface-feeding species that predominantly prey on small fish are often subject to greater ecological pressures compared to others. This would suggest that the surface feeding availability of small forage fish species including lesser sandeel and sprat is limiting the breeding success of surface-feeding species such as black-legged kittiwake. Reductions in food availability could be a result of climate change or due to past and present fisheries, or a combination of both. For more information, read, [UK MS marine bird biodiversity assessment](#).

The recent avian influenza outbreak is likely to have had a strong negative effect on seabird population sizes for some species. It is not yet clear what the extent of the impact is, but it has the potential to move the baseline further away from meeting GES targets.

Bird bycatch

The 2019 UK MS assessment suggests a new target on bycatch mortality that will be used in the future. It is well recognised that certain fishing gears can pose a high bycatch risk to seabirds. Anderson et al²³ (2022) identifies the UK offshore demersal longline fishery and the <10m static net fishery as the fleets that pose the highest risk to birds.

Mortality estimates are not produced routinely for birds using data available from the UK Bycatch Monitoring Programme. Preliminary estimates using the available data suggests that UK vessels in longline, gillnet and midwater trawls may account for thousands of seabird mortalities each year covering several species, with fulmar and cormorant being the most affected species in terms of possible population impacts with a further five species (great northern diver, gannet, shag, guillemot and razorbill) having an estimated bycatch mortality that exceeded 1% of total adult mortality (Northridge et al 2020²⁴ and Miles et al 2020²⁵). However, these estimates have high uncertainty in part because sample sizes are low and possibly unrepresentative of the fleet.

Bird summary

23 Anderson, O.R.J., Thompson, D. & Parsons, M. (2022). [Seabird bycatch mitigation: evidence base for possible UK application and research](#). JNCC Report No. 717, JNCC, Peterborough. ISSN 0963-8091.

24 Northridge, S., Kinston, A. and Coram, A. (2020). Preliminary estimates of seabird bycatch by UK vessels in UK and adjacent waters. Scottish Ocean Institute, University of St Andrews. Final report to JNCC

25 Miles, J., Parsons, M. and O'Brien, S. (2020). Preliminary assessment of seabird population response to potential bycatch mitigation in the UK-registered fishing fleet. Report prepared for the Department for Environment Food and Rural Affairs (Project Code ME6024).

Seabird populations are currently below the level that is considered to meet GES and the situation is deteriorating. Some declines in breeding success have been linked to prey availability caused by climate change and / or past and present fisheries. Invasive predatory mammals are also known to impact breeding success on island colonies. The impact of bycatch will be included in future assessments and current evidence suggests that some longline and static net fisheries could be having possible population level impacts on certain species.

D1 and D4 – Fish and D3 – Commercially exploited fish and shellfish

Demersal fish biodiversity is recovering from a history of over-exploitation, but GES has not yet been achieved in either the Greater North Sea or the Celtic Seas. A partial assessment of pelagic shelf fish status did not provide a clear result.

The UK has achieved its aim of GES for some commercially exploited fish. Most national shellfish stocks have either not yet achieved GES or their status is uncertain. The percentage of quota stocks fished below MSY and the proportion of marine fish spawning stock biomasses capable of producing MSY have increased significantly since 1990.

Fish are an important ecosystem component that contributes to overall levels of biodiversity (D1). In addition, fish of different species have a significant role in marine food webs (D4), acting as both predators and prey. Some fish species are commercially exploited, and only a proportion of these have managed quotas. Over exploitation can lead to a decline in stocks (D3) which can reduce both future commercial opportunities and have wider ecological impacts.

In order to meet Good Environmental Status, the high-level objective for fish is that 'the abundance and demography of fish indicate healthy populations that are not significantly affected by human activities. For stocks of commercial fish, the high-level objective is that 'Populations of all commercially exploited fish and shellfish are within safe biological limits, exhibiting a population age and size distribution that is indicative of a healthy stock'.

According to the [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#), neither of these objectives are currently being met, although there are signs of improvement. The baseline environmental condition with respect to fish is therefore one where recovery is required to meet GES. For more information, read, [UK MS fish biodiversity assessment](#) and [UK MS commercial fish and shellfish assessment](#).

The 2019 assessment used a limited number of indicators. More indicators are being included in future assessments. A summary of the current status and indicators is shown in Table A4a and A4b.

Table A4a. Detail from the 2019 UK MS assessment on fish [D1](#); [D4: Fish](#). Taken from [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#) and the [UK MS Marine Online Assessment Tool](#).

Target	Indicator	North Sea	Celtic Seas
The size structure of fish communities is indicative of a healthy marine food web.	Size composition in fish communities	GES not achieved	GES not achieved
The size structure of fish communities is indicative of a healthy marine food web.	Proportion of large fish (Large Fish Index)	GES not achieved	GES partially achieved
The size structure of fish communities is indicative of a healthy marine food web.	Mean maximum length of fish.	GES not achieved	GES not achieved
Incidental bycatch is below levels which threaten long-term viability and recovery of fish populations.	Under development	Not assessed	Not assessed
The population abundance of sensitive species is not decreasing due to anthropogenic activities and long-term viability is ensured.	Recovery in the population abundance of sensitive fish species	GES not achieved	GES achieved
For fish species in the Habitats and Birds Directive population abundance and geographic distribution meets established	UK assessments of listed fish species	Not assessed	Not assessed

Target	Indicator	North Sea	Celtic Seas
favourable reference values.			
For listed fish species, the area and the quality of the habitat is sufficient.	UK assessments of listed fish species	Not assessed	Not assessed

Table A4b. Detail from the 2019 UK MS assessment [D3: commercial fish and shellfish](#). Taken from [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#) and the [UK MS Marine Online Assessment Tool](#).

Target	Indicator	North Sea	Celtic Seas
The Fishing mortality rate of populations of commercially exploited species is at or below levels which can produce the maximum sustainable yield.	Commercial fishing pressure for stocks of UK interest	GES partially achieved	GES partially achieved
The Spawning Stock Biomass of populations of commercially exploited species are above biomass levels capable of producing the maximum sustainable yield.	Reproductive capacity of commercially exploited stocks of UK interest	GES partially achieved	GES partially achieved

Current impact of fisheries on the baseline condition

The status of commercial fish stocks (D3) primarily relates to exploitation rates so is predominantly influenced by fishing activities. For commercial fish some (53% of quota stocks) were being exploited at or below MSY in 2015, but this was not the case for all stocks. Out of a suite of 79 TACs which can be reported across multiple years, 32 of the 79 baseline TACs were consistent with ICES' advice (40%) in 2023 compared to 27 TACs (34%) in 2022 (Bell et al. 2023²⁶). Most non-quota stocks are unassessed, and do not have MSY or a suitable proxy in place despite being a significant proportion of UK landings. Most shellfish stocks have either not met the requirement, or their status is uncertain. For more information, read [UK MS commercial fish and shellfish assessment](#).

Fish as part of the ecosystem (D1 and D4) encompasses a much wider range of species, including those not commercially targeted. Both the removal of targeted species and bycatch of non-targeted / non-commercial fish species is relevant. While fishing is considered the main anthropogenic activity that is relevant to this ecosystem component, other pressures such as noise from renewable infrastructure and hydrodynamic changes brought about from coastal defence are also relevant in some instances. More information on relevant pressures is provided in section 2.6.1 of the [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#).

Recovery from past over-exploitation by fisheries does appear to be occurring in some areas. Demersal fish biodiversity is recovering from a history of over-exploitation, but GES has not been achieved in either the Greater North Sea or the Celtic Sea. A partial assessment of pelagic shelf fish status did not provide a clear result. For more information, read [UK MS fish biodiversity assessment](#).

Fish summary

The current status of fish communities in the UK is primarily shaped by historical over-exploitation by fisheries, while ongoing over-exploitation continues to be a notable contributing factor. Improved fisheries management since the 1990s has resulted in more stocks being fished at or below MSY levels so, although the target is not yet met, there is a positive trend. Improved fisheries management has also resulted in some positive trend in fish communities beyond the targeted stocks.

²⁶ Bell ED, Nash RMD, Garnacho E, De Oliveira J, Hanin M, Gilmour F, O'Brien CM, 2023. Assessing the sustainability of negotiated fisheries catch limits by the UK for 2023. Cefas project report for UK fisheries policy authorities

D1 and D6 – Benthic Habitats

The levels of physical damage to soft sediment habitats are consistent with the achievement of GES in UK waters to the west of the Celtic Seas, but not in the Celtic Seas or in the Greater North Sea. For sublittoral rock and biogenic habitats GES has not yet been achieved. Descriptor also relevant to Geodiversity (geology and sediments).

Benthic habitats are an important ecosystem component that contributes to overall levels of biodiversity (D1). It is also important to ensure the structure and function of the benthic ecosystems is adequately safeguarded by considering seafloor integrity (D6).

To meet Good Environmental Status, the high-level objective is that 'the health of seabed habitats is not significantly adversely affected by human activities'. However, according to the [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#), GES has not been achieved. This states that the main problem is caused by physical disruption of the seabed from fishing gear (demersal towed gear). The baseline environmental condition with respect to benthic habitats is therefore one which is required to meet GES. For more information, read [UK MS benthic biodiversity and seafloor habitats assessment](#).

A summary of the current status is shown in Table A5. Most indicators focussing on intertidal benthic habitat are consistent with GES (except for saltmarsh in the North Sea), but subtidal habitats are not consistent with GES.

Table A5. Detail from the 2019 UK MS assessment on [D1; D6: Benthic habitats](#). Taken from [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#) and the [UK MS Marine Online Assessment Tool](#).

Table notes:

Note 1: The benthic communities' indicator (OSPAR BH2) is currently in the pilot stage of development.

Target	Indicator	North Sea	Celtic Seas
The physical loss of each seabed habitat type caused by human activities is minimised and where possible reversed.	Physical loss of predicted habitats	GES not achieved	GES not achieved
The extent of habitat types adversely affected by physical disturbance caused	Extent of Physical damage indicator to predominant	GES not achieved	GES not achieved

Target	Indicator	North Sea	Celtic Seas
by human activity should be minimised.	and special habitats		
The extent of habitat types adversely affected by physical disturbance caused by human activity should be minimised.	Benthic communities' indicator ^{Note1}	Not assessed	Not assessed
Habitat loss of sensitive, fragile, or important habitats caused by human activities is prevented, and where feasible reversed.	Physical loss of predicted habitats indicator	GES not achieved	GES not achieved
The extent of adverse effects caused by human activities on the condition, function and ecosystem processes of habitats is minimised.	Benthic communities' indicator	Not assessed	Not assessed
The extent of adverse effects caused by human activities on the condition, function and ecosystem processes of habitats is minimised.	Aggregated Infaunal Quality Index	GES not achieved	GES partially achieved
The extent of adverse effects caused by human activities on the condition, function and ecosystem processes of habitats is minimised.	Aggregated Saltmarsh Tool	GES not achieved	GES achieved
The extent of adverse effects caused by human activities on the condition, function and ecosystem processes of habitats is minimised.	Aggregated Rocky Shore Macroalgal Index	GES achieved	GES achieved

Target	Indicator	North Sea	Celtic Seas
The extent of adverse effects caused by human activities on the condition, function and ecosystem processes of habitats is minimised.	Aggregated Intertidal Seagrass Tool	GES achieved	GES achieved
The extent of adverse effects caused by human activities on the condition, function and ecosystem processes of habitats is minimised.	Intertidal rock community change indicator (MarClim)	GES status uncertain	GES status uncertain

Current impact of fisheries on the baseline condition

Fishing is one of several anthropogenic activities that are considered relevant to this ecosystem component. Other pressures include physical loss from renewable energy generation and oil extraction, coastal defence and the input and spread on invasive non-native species. But the main barrier to the achievement of GES is caused by physical disruption of the seabed from fishing. More information on relevant pressures is provided in section 2.6.1 of the [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#).

Physical disturbance of seabed

Fishing is considered to be the main driver of physical disturbance and occurs when gear is towed across the seafloor. The degree of disturbance depends on factors such as the size of the gear, the activity level (for example, number of tows per year) how fragile the benthic species present are and how quickly they can recover. The use of demersal towed gears is widely distributed. Using available VMS data and benthic habitat data available, the 2019 UK MS assessment concluded that seabed disturbance targets were not being met within the Greater North Sea and Celtic Seas. As the analysis combined the VMS of all towed gear métiers together, it is not yet possible to determine the relative contribution of different gear types to the current levels of seabed disturbance. Other activities, such as aggregate extraction, have yet to be included within the analysis, but the spatial extents of these are considerably smaller than fishing activity. For more information and detail of the analysis, read [UK MS Extent of physical damage to predominant seafloor habitats assessment](#) and [UK MS Extent of Physical Damage to Predominant and Special Habitats assessment](#).

Habitat loss

UK MS assessments on a limited range of highly sensitive habitats (seagrass beds and horse mussel reefs), suggest that a loss of areas of potential habitat has occurred up to 2016. This was based on modelled data. The main causes were not thought to be due to fishing as these impacts are generally considered reversible. Irreversible loss has been predicted to have come about from aquaculture, navigational dredging and dredge spoil disposal, recreational activity, and coastal development. For more information, read [UK MS Potential physical loss of predicted seafloor habitats assessment](#). There are instances where fishing can result in permanent habitat loss (for instance, heavy bottom towed gear over softer, rocky reef habitats), but fishing is generally considered to lead to habitat disturbance and degradation rather than loss.

Benthic habitat summary

There is widespread disturbance of seabed habitats by demersal towed gear that is contributing to the failure to achieve GES. Other impacts from non-fisheries activities may also be having an influence, but to a much lesser degree.

D4 – Food webs

Food webs (D4) are the network of predator-prey relationships that occur in the marine environment, from phytoplankton to top predators such as birds or seals. Fish communities are a key component of food webs. Knowledge of food webs allow understanding of how changes at one trophic level can impact those above and below it.

To meet Good Environmental Status, the high-level objective for food webs is that 'the health of the marine food web is not significantly affected by human activities'. According to the [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#), the extent to which good environmental status has been achieved is uncertain. Plankton communities are changing, some fish communities are recovering from past overexploitation, but others are not, breeding seabirds are in decline, and grey seal numbers are increasing. It is known that the components of the marine food webs are changing but it is not always clear how they are affecting each other. For more information, read [UK MS food webs assessment](#).

A summary of the current status is shown in Table A6.

Table A6. Detail from the 2019 UK MS assessment on [D4: food webs](#). Taken from [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#) and the [UK MS Marine Online Assessment Tool](#).

Target	Indicator	North Sea	Celtic Seas
The species composition and relative abundance of representative feeding guilds are indicative of a healthy marine food web.	Mean maximum length of fish	GES not achieved	GES not achieved
The species composition and relative abundance of representative feeding guilds are indicative of a healthy marine food web.	Selected plankton lifeforms pairs (for example, large vs small zooplankton)	GES status uncertain	GES status uncertain
The species composition and relative abundance of representative feeding guilds are indicative of a healthy marine food web.	Abundance and distribution of coastal bottlenose dolphins	GES achieved	GES status uncertain
The species composition and relative abundance of representative feeding guilds are indicative of a healthy marine food web.	Abundance and distribution of cetaceans other than coastal bottlenose dolphins	GES partially achieved	GES status uncertain
The species composition and relative abundance of representative feeding guilds are indicative of a healthy marine food web.	Marine bird abundance	GES not achieved	GES not achieved

Target	Indicator	North Sea	Celtic Seas
The balance of abundance between representative feeding guilds is indicative of a healthy marine food web.	TBC	Not assessed	Not assessed
The size structure of fish communities is indicative of a healthy marine food web.	Size composition in fish communities	GES not achieved	GES partially achieved
Productivity of the representative feeding guilds, characterised by key species, is indicative of a healthy marine food web.	Grey seal pup production	GES achieved	GES achieved
Productivity of the representative feeding guilds, characterised by key species, is indicative of a healthy marine food web.	Marine bird breeding success/failure	GES not achieved	GES partially achieved
Productivity of the representative feeding guilds, characterised by key species, is indicative of a healthy marine food web.	Kittiwake breeding success²⁷	GES achieved	Not assessed

²⁷ Kittiwake breeding success has only been achieved for the English mainland colonies. GES for Kittiwake breeding success has not been achieved for the entire North Sea region due to breeding failures in Orkney and Shetland.

Current impact of fisheries on the baseline condition

Anthropogenic impacts on the marine food web are multiple and complex. As fish communities are a key component of food webs, pressure from fisheries can have a significant impact. The removal of forage fish (i.e., species at a low trophic level that contribute significantly to the diets of other fish, marine mammals, or seabirds) has the potential to impact higher trophic levels. For instance, reduction in the availability of small forage fish is likely to be contributing to the breeding success of some marine birds. Climatically driven changes in plankton will also have a strong influence on the rest of the food web. More detail is given under the individual faunal group sections. For more information, read [UK MS food webs assessment](#).

Food webs summary

Historic fishing activity has had a large impact on fish community structure which is a key component of marine food webs. With improved fisheries management focusing on stocks, some recovery is occurring. However, the management of fish stocks solely to safeguard future fisheries will not necessarily lead to all food web targets being met. Changes in plankton are likely driven by prevailing environmental conditions, but other impacts cannot be ruled out.

D10 – Marine Litter

To achieve Good Environmental Status for marine litter, the high-level objective is that ‘the amount of litter and its degradation products on coastlines and in the marine environment is reducing and levels do not pose a significant risk to the environment and marine life.’ According to the [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#), GES has not been achieved for marine litter, and it remains a significant pressure on marine ecosystems. The baseline environmental condition with respect to marine litter is therefore one where improvement is required to meet GES. For more information, read [UK MS litter assessment](#). A summary of the current status is shown in Table A7.

Table A7. Detail from the 2019 UK MS assessment on [D10 Marine Litter](#) Taken from [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#) and the [UK MS Marine Online Assessment Tool](#).

Target	Indicator	North Sea	Celtic Seas
A decrease in the total amount of the most common categories of	Presence of litter (beaches)	GES not achieved	GES not achieved

Target	Indicator	North Sea	Celtic Seas
litter found on surveyed beaches.			
A decrease in the number of items of litter on the seabed.	Presence of litter (seabed)	GES status uncertain	GES status uncertain
A downward trend in the number of northern fulmars with more than 0.1g of plastic particles in their stomach.	Presence of floating litter	GES status uncertain	GES status uncertain
Develop an appropriate indicator to measure micro-litter in the marine environment.	In development	Not assessed	Not assessed

Current impact of fisheries on the baseline condition

Fishing activities can contribute to marine litter through discarded or lost fishing gear, including nets, lines, and traps. This type of litter, also known as "ghost gear", can persist in the environment, entangling marine life, smothering benthic habitats, and introducing microplastics into the marine food chain. In addition, waste generated onboard fishing vessels, such as packaging materials and food waste, can also contribute to marine litter when not disposed of properly.

Marine litter summary

Marine litter, including from fishing activities, is a significant pressure on marine ecosystems and water quality. The UK has not yet achieved its aim of GES for litter. Beach litter levels in the Celtic Seas have remained largely stable since the assessment in 2012, whilst beach litter levels in the Greater North Sea have slightly increased. Waste fishing material is a component of beach litter. Both floating litter and seafloor litter remain an issue, with plastic the predominant material. Achieving GES for marine litter requires improved waste management practices, the reduction of lost or discarded fishing gear, and increased awareness and monitoring of the issue.

D11 – Underwater noise

To achieve Good Environmental Status for underwater noise, the high-level objective is that 'loud, low and mid frequency impulsive sounds and continuous low frequency sounds introduced into the marine environment through human activities are managed to the extent that they do not have adverse effects on marine ecosystems and animals at the population level.' [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#), indicates that data on underwater noise is limited, making it difficult to determine whether GES has been achieved. However, increasing awareness of the issue has led to further research and monitoring efforts. For more information, read [UK MS underwater noise assessment](#). A summary of the current status is shown in Table A8.

Table A8. Detail from the 2019 UK MS assessment on [D11 Underwater noise](#). Taken from [Marine Strategy Part One: UK updated assessment and Good Environmental Status](#) and the [UK MS Marine Online Assessment Tool](#).

Target 2019	Indicator	North Sea	Celtic Seas
Levels of anthropogenic impulsive sound sources do not exceed levels that adversely affect populations of marine animals.		GES status uncertain	GES status uncertain
Levels of anthropogenic continuous low-frequency sound do not exceed the levels that adversely affect populations of marine animals	Safe levels of low anthropogenic continuous low frequency sound	GES status uncertain	GES status uncertain

Current impact of fisheries on the baseline condition

Fishing activities can generate underwater noise through the use of engines, sonar, and other equipment. Although fisheries are not the primary source of anthropogenic underwater noise (shipping, construction, and energy production are major contributors), they can still contribute to the overall noise pollution in the marine

environment. This noise can impact marine species that rely on sound for communication, navigation, and foraging, leading to changes in behaviour, stress, and potential displacement from preferred habitats.

Summary

Underwater noise from fisheries, while not the primary source, can still contribute to the overall noise pollution in the marine environment. Fishing vessels will contribute to underwater noise through sonar, engine noise, gear interacting with seabed and deploying and retrieving gear. The achievement of GES for underwater noise in the UK is uncertain. Research and monitoring programmes established since 2012 have provided an improved understanding of the impacts of sound on marine ecosystems. However, achieving GES for underwater noise will require better understanding and monitoring of the issue, as well as the development and implementation of strategies to manage noise pollution from various sources.

Appendix C: UK MPA designations

1. [Conservation of Habitats and Species Regulations 2017](#) and [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)
 - o Special Protection Areas (SPAs) - England, Scotland, Wales
 - o Special Areas of Conservation (SACs) - England, Scotland, Wales
2. [Conservation \(Natural Habitats, etc.\) Regulations \(Northern Ireland\) 1995 \(as amended\)](#)
 - A. Special Protection Areas (SPAs) – Northern Ireland
 - B. Special Areas of Conservation (SACs) – Northern Ireland
3. [Marine and Coastal Access Act 2009](#)
 - o Marine Conservation Zones (MCZs) – England, Wales
 - o Nature Conservation Marine Protected Areas (NCMPAs), offshore waters – Scotland
4. [Marine \(Scotland\) Act 2010](#)
 - o Nature Conservation Marine Protected Areas (NCMPAs), inshore waters – Scotland
5. [Marine Act \(Northern Ireland\) 2013](#)
 - o Marine Conservation Zones (MCZs) – Northern Ireland
6. [Natural Environment and Rural Communities Act 2006 \(Part 4\)](#)
 - o Sites of Special Scientific Interest (SSSI) – England, Scotland, Wales
7. [The Environment \(Northern Ireland\) Order 2002](#)
 - o Coastal Areas of Special Scientific Interest (ASSIs) - Northern Ireland
8. [Convention on Wetlands of International Importance](#)
 - o Ramsar Sites (Wetland of International Importance under the Convention on Wetlands of International Importance Especially as Waterfowl Habitat)

Appendix D: Marine Plans – Specific detail within the UK

Northern Ireland

The Department of Agriculture, Environment and Rural Affairs (DAERA) is the Marine Plan Authority (MPA) that prepares marine plans for the Northern Ireland marine area. The [Draft Marine Plan for Northern Ireland](#) will facilitate the sustainable development and protection of the marine area. The Marine Plan has been developed to support and complement other Northern Ireland and UK legislation, policies, plans and strategies. These include the Climate Change (Northern Ireland) Act 2022 and the Fisheries Act 2020 along with its associated Joint Fisheries Statement.

Wales

The first [Welsh National Marine Plan](#) was introduced in 2019, providing a statutory policy framework to help guide the sustainable development of the Welsh marine area. It was prepared and adopted under the MCAA to conform with the UK MPS. Under the MCAA, the Welsh Ministers are the marine plan authority for the Welsh marine planning area and the Welsh Marine Plan covers both the inshore and offshore areas. The Marine Plan includes specific policies in relation to commercial fisheries alongside cross-cutting environmental and socio-economic policies.

England

Marine plans put into practice the objectives for the marine environment that are identified in the MPS alongside the [National Planning Policy Framework](#) (NPPF) and the [Localism Act 2011](#). The MMO is responsible for preparing [marine plans in England](#), and published the [North East](#), [North West](#), [South West](#), [South East](#), [South](#) and [East](#) marine plans. The marine plans include policies to support a sustainable fishing industry and a healthy marine environment.

Appendix E: Glossary

Biodiversity: The variety of all life on earth, including the diversity within and between all plant and animal species and the diversity of ecosystems.

Blue carbon: Carbon captured by the world's oceans and coastal ecosystems. Blue carbon habitats are the habitats where it is stored.

Bycatch: Defined in section 52 of the Fisheries Act 2020 means (a) fish that are caught while fishing for fish of a different description, or (b) animals other than fish that are caught in the course of fishing.

Climate change: Referring to human-induced climate change driven by greenhouse gas emissions. It includes global warming, warming oceans, greater risks of flooding, droughts, and heat waves.

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES): CITES is an international agreement between governments. Its aim is to ensure that international trade in specimens of wild animals and plants does not threaten the survival of the species.

Convention on the Conservation of Migratory Species of Wild Animals (CMS): The Convention on the Conservation of Migratory Species of Wild Animals, also known as the Convention on Migratory Species (CMS) is an international agreement that aims to conserve migratory species throughout their ranges. The agreement was signed under the auspices of the United Nations Environment Programme and is concerned with conservation of wildlife and habitats on a global scale.

Descriptors (UK Marine Strategy): Descriptors are elements within the environment that provide the means to assess general status or condition of that environment. This can be done through the establishment of indicators or targets for each descriptor.

Ecosystem: A biological community which consists of all the organisms and the physical environment with which they interact.

Ecosystem-based approach: Defined in section 1(10) of the Fisheries Act 2020 as an approach which (a) ensures that the collective pressure of human activities is kept within levels compatible with the achievement of good environmental status (within the meaning of the Marine Strategy Regulations 2010 (S.I. 2010/1627)), and (b) does not compromise the capacity of marine ecosystems to respond to human-induced changes.

Findspots: The place where one or more artefacts have been found. May prove to be associated with a site, other finds, natural features etc., or isolated (no apparent relationship).

Fish: Marine and estuarine finfish and shellfish, including migratory species such as European eel and salmon.

Fisheries: The commercial or recreational capture of wild marine organisms (fish and shellfish); commercial fishing can use a variety of mobile and static gear, vessels and locations.

Fisheries Framework (Fisheries Management and Support Framework): Outlines the legislation and policies for the sustainable management of fisheries and the wider seafood sector. It covers the catching, processing and supply industries, including access to fishing opportunities, licensing, stock recovery, enforcement, data collection, aquaculture, recreational sea angling, and areas of collaboration and common principles. It includes governance structures and ways of working.

Fisheries Management Plan (FMP): A document, prepared and published under the Fisheries Act 2020, that sets out policies designed to restore one or more stocks of sea fish to, or maintain them at, sustainable levels.

Fisheries policy authorities: As defined by section 52 of the Fisheries Act 2020, “fisheries policy authorities” means (a) the Secretary of State, (b) the Scottish Ministers, (c) the Welsh Ministers, and (d) the Northern Ireland department.

Fishermen’s fasteners: Places where fishermen have snagged their fishing gear.

Food webs: The natural interconnection of food chains and a graphical representation of what eats what in an ecological community.

Good Environmental Status (GES): A qualitative description of the state of the seas that the Marine Strategy Regulations 2010 requires authorities to achieve or maintain by the year 2020. Achieving GES is about protecting the marine environment, preventing its deterioration, and restoring it where practical, while allowing sustainable use of marine resources.

Inshore: 0 to 12 nautical miles from the UK’s territorial sea baselines.

Inshore Fisheries and Conservation Authorities (IFCAs): IFCAs are responsible for the management of fishing activities in English coastal waters out to six nautical miles from territorial sea baselines. The 10 IFCAs have a shared 'vision' to lead, champion and manage a sustainable marine environment and inshore fisheries.

International Council for the Exploration of the Sea (ICES): Coordinates and promotes marine research on oceanography, the marine environment, the marine ecosystem, and on living marine resources in the North Atlantic.

Joint Fisheries Statement (JFS): As defined by section 2(1) of the Fisheries Act 2020, a document which sets out the policies of the fisheries policy authorities for

achieving, or contributing to the achievement of, the fisheries objectives in the Fisheries Act 2020.

Marine environment: Includes (a) the natural beauty or amenity of marine or coastal areas, or of inland waters or waterside areas, (b) features of archaeological or historic interest in those areas, and c) flora and fauna which are dependent on, or associated with, a marine or coastal, or aquatic or waterside, environment.

Marine litter: Any solid material which has been deliberately discarded or unintentionally lost on beaches, on shores or at sea. It includes any persistent, manufactured or processed solid material.

Marine Management Organisation (MMO): An executive non-departmental public body in the United Kingdom established under the Marine and Coastal Access Act 2009, with responsibility for planning and licensing of activities in English waters from 0-200 nautical miles, save fisheries activities within 0-6nm which are the responsibility of the IFCA's. The MMO also has some UK responsibilities.

Marine Protected Areas (MPA): Areas of the sea protected by law for nature conservation purposes.

Marine Plans: A marine plan is a document which has been prepared and adopted for a marine plan area by the appropriate marine plan authority in accordance with Schedule 6 of the Marine and Coastal Access Act 2009, and which states the authority's policies for and in connection with the sustainable development of the area.

Maximum Sustainable Yield (MSY): Defined in the Fisheries Act 2020 as the highest theoretical equilibrium yield that can be continuously taken on average from a marine stock under existing environmental conditions without significantly affecting recruitment.

National fisheries authorities: As defined by section 25(4) of the Fisheries Act 2020, these are (a) the Secretary of State, (b) the Marine Management Organisation, (c) the Scottish Ministers, (d) the Welsh Ministers, and (e) the Northern Ireland department. The term 'national fisheries authorities' differs from 'fisheries policies authorities' in including the MMO.

Non-quota stocks (NQS): Species that are not managed through TACs (quota limits). They include some finfish, most commercial shellfish species, and various other species.

Offshore: 12 to 200 nautical miles from the UK's territorial sea baselines.

Precautionary approach to fisheries management: Defined in section 1(10) of the Fisheries Act 2020 as an approach in which the absence of sufficient scientific information is not used to justify postponing or failing to take management measures to

conserve target species, associated or dependent species, non-target species or their environment.

Processing: As defined by section 52 of the Fisheries Act 2020: in relation to fish or any other aquatic organism, includes preserving or preparing the organism, or producing any substance or article from it, by any method for human or animal consumption.

RAMSAR Convention: The convention emphasises the special value of wetland, particularly as a key habitat for waterfowl. The Convention resulted in the designation of sites known as Ramsar Sites for management and conservation at an international level.

Recreational sea fishing: An umbrella term for a variety of recreational activities including recreational sea angling recreational netters and charter boats.

Regional Fisheries Management Organisation (RFMO): A multilateral international body or agreement set up to manage and conserve fish stocks in a particular region.

Remote Electronic Monitoring (REM): Integrated on-board systems that may include cameras, gear sensors, video storage, and Global Positioning System units, which capture comprehensive videos and are used to monitor fishing activity with associated sensor and positional information.

Resilience: The ability of an ecosystem, species, habitat, or industry to respond, recover or adapt to either changes or disturbances within a reasonable timeframe without permanent loss or damage.

Sensitive species: As defined in section 52 of the Fisheries Act 2020, sensitive species means: (a) any species of animal or plant listed in Annex II or IV of Directive 92/43/EEC of the Council of the European Communities on the conservation of natural habitats and of wild flora and fauna (as amended from time to time), (b) any other species of animal or plant, other than a species of fish, whose habitat, distribution, population size or population condition is adversely affected by pressures arising from fishing or other human activities, or (c) any species of bird.

Shellfish: As defined in section 52 of the Fisheries Act 2020, shellfish includes molluscs and crustaceans of any kind found in the sea or inland waters.

Statutory Nature Conservation Bodies' (SNCBs): The Statutory Nature Conservation Bodies' (SNCBs) are Natural England, Natural Resources Wales, the Northern Ireland Environment Agency, the Joint Nature Conservation Committee, and the Department of Agriculture, Environment and Rural Affairs (DAERA) statutory advisory body, the Council for Nature Conservation and the Countryside.

Sustainable Development: As defined by the Brundtland report (1987), sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Sustainable fishing: Sustainable fisheries protect their stocks and the wider environment whilst delivering social and economic prosperity. Fisheries management decisions should balance environmental, economic and social considerations to create sustainable fisheries that benefit present and future generations. It means ensuring that fish stocks can be fished commercially and recreationally, both now and in the future. Both the short-term and the long-term impacts of decisions managing fishing activity to protect stocks and on the fishing industry should be considered, while any short-term decisions to give social or economic benefit should not significantly compromise the long-term health of the marine environment. These decisions should recognise the cultural importance of fishing through maintaining and, where possible, strengthening coastal communities and livelihoods alongside the requirement for fish stocks to reach and maintain sustainable levels.

Territorial sea: The waters under the jurisdiction of a state, defined by UNCLOS as up to 12 nautical miles from the baseline or low-water line along the coast.

The Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR): An international agreement for cooperation for the protection of the marine environment of the North-East Atlantic. Work under the Convention is managed by the OSPAR Commission, made up of representatives of the Governments of 15 Contracting Parties and the European Commission, representing the European Union. Work to implement the OSPAR Convention is taken forward through the adoption of decisions, which are legally binding on the Contracting Parties, recommendations, and other agreements.

Total Allowable Catch (TAC): The total allowable catch (TAC) is a catch limit set for a particular fishery or stock, generally for a year or a fishing season. TACs are usually expressed in tonnes of live weight equivalent but are sometimes set in terms of numbers of fish.

Trade and Cooperation Agreement (TCA): The Trade and Cooperation Agreement between the United Kingdom of Great Britain and Northern Ireland, of the one part, and the European Union and the European Atomic Energy Community of the other part. This agreement governs the relationship between the UK and the EU. It was signed in December 2020, applied from 1 January 2021 and was ratified (in a slightly amended form) in April 2021.

UK Marine Policy Statement (UKMPS): The UK policy framework for preparing marine plans and taking decisions that affect the marine environment in the UK.

UK Marine Strategy (UK MS): The UK Marine Strategy provides the framework for delivering marine policy at the UK level and sets out how we will achieve the vision of clean, healthy, safe, productive, and biologically diverse oceans and seas.

UN Convention on Biological Diversity (CBD): The international legal instrument for the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources.

UN Convention on the Law of the Sea (UNCLOS): A multilateral international agreement that lays down a comprehensive regime of law and order in the world's oceans and seas, establishing rules governing all uses of the oceans and their resources. It was signed in 1982 and came into force in 1994.

UN Sustainable Development Goals: 17 United Nations goals 'to transform our world' and promote prosperity whilst protecting the planet. Goal 14 is to conserve and sustainably use the oceans, seas and marine resources for sustainable development.

Water quality: A measure of the condition of water and its suitability to sustain a range of uses for both biotic and human benefits.

Appendix F: Statutory Consultee Consultation Responses

As required by the 2004 Act, we have sought the views of our statutory consultees on this SEA and associated ER and their responses are detailed below.

Natural England Response



22nd September 2024

BY EMAIL ONLY

Subject: Strategic Environmental Assessments Scoping Report – Irish Sea Demersal & Irish Sea Pelagic Fisheries Management Plans

Thank you for your consultation email dated 21st August 2023 seeking our views on whether the proposed scope and level of detail in DAERA's Strategic Environmental Assessments (SEA) for the above two fisheries are appropriate.

We have reviewed the two reports provided. In both documents, the proposed scope includes the main high-level topics we would want to see covered within the SEAs. In terms of whether the level of detail of the proposed assessment is appropriate, that is more difficult to say with certainty at this stage as the scoping documents remain relatively high-level. We are pleased to see these documents take account of potential impacts on Climate Change (one of the 8 Fisheries Act Objectives) and inclusion of the Environmental Principles (introduced via the Environmental Act 2021).

The SEA Scoping Reports set out how the FMPs may address environmental impacts beyond stock, though the proposed Objective 5 of the FMPs go a bit further stating "Explore the need for management around interactions between pelagic fishing... and fishing for haddock, sole, plaice and Nephrops in UK Irish Sea waters... on the wider environment". We consider both these fisheries to have significant environmental effects beyond impacts on stock (especially on the wider marine food web and on mud habitat benthos respectively) and so would expect a detailed review of how the FMP could accordingly alleviate such pressures over time. We remind you that although fishing is but one pressure in the Irish Sea, it has been and remains one of the predominant activities responsible for us still not achieving Good Environmental Status.

In Table 2 for the Demersal fishery, Historic England and similar bodies may question the scoping out of cultural heritage, but that is not part of Natural England's remit. In the list of international programmes to be considered you may wish to add in UN Fish Stock Agreements, and the North Atlantic Salmon Conservation Organisation (NASCO). In section 8.1.2 of both documents you may wish to check the deliverability of the timetable slated for 2023.

How the consultation response was considered

Point #	How point was considered
1. We consider both these fisheries to have significant environmental effects beyond impacts on stock (especially on the wider marine food web and on mud habitat benthos respectively) and so would expect a detailed review of how the FMP could accordingly alleviate such pressures over time.	DAERA acknowledges this request and will consider undertaking a review at an appropriate time.
2. In the list of international programmes to be considered you may wish to add in UN Fish Stock Agreements, and the North Atlantic Salmon Conservation Organisation (NASCO).	Reference to the UN Fish Stocks Agreement 1995 has been added into Section 4. Reference to the North Atlantic Salmon Conservation Organisation (NASCO) has been added into Section 4
3. In Section 8.1.2 of both documents you may wish to check the deliverability of the timetable slated for 2023.	DAERA are aiming to publish the Irish Sea Pelagic FMP by the end of 2026.

JNCC Response



22nd September 2023.

BY EMAIL ONLY

Subject: Fisheries Management Plan Strategic Environmental Assessments – seeking views from statutory consultees.

Thank you for consultation email dated 21st August 2023 regarding the Irish Sea Demersal and Irish Sea Pelagic Fisheries Management Plan Scoping Reports. JNCC appreciate the opportunity to provide advice on the proposed scope and level of detail of the assessments. Given their similarities, we have consolidated our feedback on the two scoping reports into a single response. Please accept this letter as JNCC's formal advice on the reports and the conclusions they make.

We support the approach taken in the scoping reports; The potential environmental effects of the fishery have been well identified, and we consider the outlined methodology suitable for assessing these factors. The approach of framing the assessment around UK MS descriptors is sensible, covering the range of environmental pressures associated with existing fishing activities to be managed through FMPs, and can establish an appropriate environmental baseline.

We would welcome further information on the scoping process. We agree that both fisheries are likely to have significant environmental effects on the issues that have been scoped into the assessment. While the decision to exclude the issues Population, Human Health, Air, Material Assets and Cultural Heritage from these plans appears appropriate, it is unclear why a number of these issues are included in some FMPs and not others. However, we expect that other consultees may offer more expertise in these areas. The decision to exclude Landscape/Seascape in the Irish Sea Pelagic FMP seems justified based on the gear types used, however, we query the exclusion of this issue in the Irish Sea Demersal FMP. Demersal fishing activity, through physical disturbance of the seabed, has the potential to affect seascape features and assessment against this issue may therefore be beneficial to ascertain whether the scale of impact is likely to require management. **Additional clarification on the specific criteria or standards that guided the inclusion or exclusion of certain issues would be useful. Including sub-sections for the issues which have been scoped in, detailing the specific elements that will be covered, would also be helpful.**

We note that the scoping reports do not include detailed proposals for mitigation and monitoring. Including some discussion around these would improve clarity around how any potential negative impacts could be minimised or avoided. However, we understand that areas will be included and appropriately detailed in the forthcoming Environmental Report.

We hope you find this advice clear and helpful. Please do not hesitate to contact me if you have any questions or require further information.

How the consultation response was considered

Point #	How point was considered
1. We would welcome further information on the scoping process. Additional clarification on the specific criteria or standards that guided the inclusion or exclusion of certain issues would be useful. Including sub-sections for the issues which have been scoped in, detailing the specific elements that will be covered, would also be helpful.	Information added to the 'Scope of the Assessment' section.
2. We note that the scoping reports do not include detailed proposals for mitigation and monitoring. Including some discussion around these would improve clarity around how any potential negative impacts could be minimised or avoided. However, we understand that areas will be included and appropriately detailed in the forthcoming Environmental Report.	Mitigation and monitoring are covered in sections 6 and 8.

Cadw (Welsh Historic Monuments)



19th September 2023

BY EMAIL ONLY

Subject: Seeking statutory consultee views on Strategic Environmental Assessment for the Irish Sea Pelagic and Demersal Fisheries Management Plans for Northern Ireland, England and Wales

Thank you for your email inviting Cadw's comments on the above.

Advice

Registered Historic Landscape:

HLW (D) 11 Pen Gaer: Garn Fawr and Stumble Head
HLW (D) 12 Stackpole Warren
HLW (D) 13 Manobier
HLW (D) 14 Lower Teifi Valley
HLW (D) 15 Newport and Carningli
HLW (D) 3 Milford Haven Waterway
HLW (D) 4 St Davids Peninsula and Ramsey Head
HLW (D) 6 Skomer Island
HLW (D) 9 Taf and Tywi Estuary
HLW (Gt) 2 Gwent Levels
HLW (Gw) 15 Penmon
HLW (Gw) 17 Dysynni Valley
HLW (Gw) 2 Ardudwy
HLW (Gw) 6 Dinorwig
HLW (Gw) 8 Llyn and Bardsey Island
HLW (MGI) 1 Merthyr Mawr, Kenfig & Margam Burrows
HLW (WGL) 1 Gower

Designated Wrecks:

DW1 Bronze Bell
DW2 Pwll Fanog
DW3 Royal Yacht Mary
DW4 The Smalls
DW5 Resurgam
DW6 Diamond

Scoping reports have been produced for both plans and when considering the likely effect of them on the Cultural Heritage both have concluded that:-

‘The FMP is unlikely to significantly alter the current interaction between fishing and underwater cultural heritage. FMPs more broadly are also not intended to focus on mitigating any impacts of fishing on underwater architectural and archaeological heritage. This issue is beyond the scope of this SEA’.

We concur with this reasoning and therefore agree that Cultural Heritage can be scoped out of the SEA for the Irish Sea Pelagic and Demersal Fisheries Management Plans for Northern Ireland, England and Wales.

How the consultation response was considered

Point #	How point was considered
1. We concur with this reasoning and therefore agree that Cultural Heritage can be scoped out of the SEA for the Irish Sea Pelagic and Demersal Fisheries Management Plans for Northern Ireland, England and Wales.	Point noted. However, cultural Heritage has been scoped into the Environmental Report for the Irish Sea Pelagic FMP following consultation responses from NIEA and HED.

Northern Ireland Environment Agency



1st September 2023

BY EMAIL ONLY

Subject: Irish Sea Pelagic Fisheries Management Plan – SEA Screening and Scoping Report

Thank-you for your email dated 28th July 2023 regarding the SEA Screening and Scoping exercise in respect of Irish Sea Pelagic Fisheries Management Plan.

The SEA Team within the Department of Agriculture, Environment and Rural Affairs Northern Ireland (DAERA) has considered the consultation and our opinions are set out below.

DAERA notes comments regarding the screening stage of the SEA process within Section 5.1 of the scoping report. DAERA is content with these conclusions.

DAERA notes from the Scoping report no Zone of Influence has been included, DAERA recommends that this should be included within the Environmental report. Further, the scoping report does not mention any form of transboundary engagement, DAERA recommends that if the plans Zone of Influence extends into any other jurisdiction, then consultation with said jurisdiction should be considered.

DAERA notes that no SEA objectives have been provided, in addition no targets or indicators have also been provided. Alongside SEA objectives, targets and indicators should also be provided within the Environmental Report.

Natural Environment Division Comments

NIEA Natural Environment Division works to ensure that Northern Ireland's special natural environment, including its flora and fauna and landscapes, is conserved, enhanced and managed for the benefit of this and future generations, thereby contributing to sustainable development.

NED notes from Section 3.1.1 that the Environmental Report will provide an overview description of the environmental baseline. NED would recommend that environmental data under each topic area includes maps where appropriate including areas where activities should not go. Details on existing environmental problems relevant to the plan should be identified in the context of relevant environmental objectives standards and

thresholds. NED also recommend that a section on how the existing environment without the implementation of the plan should be included within each topic area in the Environmental Report. NED recommend that within the Environmental Report that any significant gaps in baseline data should be provided and if any alternative / proxy data sources are used where baseline data is unavailable. Any technical deficiencies or lack of know how should also be detailed. NED also note that that no section on interrelationships appear to have been included, this should be included in the Environmental Report.

NED notes that Section 4 contains a list of Relevant Plans and Programs. NED advises that section would benefit from the inclusion of a number of additional plans and programs. These are provided at the end of the NED response. NED advise that details on any relevant conflicts and/or synergies between this plans objectives and the objectives of other plans and programs should be identified and described within the Environmental Report. Please note this should include transboundary plans or programs should they require consultation.

NED notes from sections 5.1.1 and 5.1.3 that there is the potential to affect European sites or European offshore marine sites. NED note that no AA (Appropriate Assessment) screening appears to have been carried out at present. NED would recommend that an AA screening is carried out and dependent on the outcome of this a full AA. This would also be the case for a Marine Conservation Zone assessment for MCZs. NED would welcome the opportunity to review the completed AA screening and full AA should if be required and also any Marine Conservation Zone Assessment when they have been completed.

NED notes from Section 5.3.4 that the level of detail possible for the environmental assessment will depend upon the stage of development of the policies and measures of the FMP and that these are subject to evolution. NED advise that the SEA is therefore likely to require periodic reviews. NED would therefore like to see within the Environmental Report details of triggers which might be in place to ensure that the SEA remains up to date throughout the FMP process.

NED also notes from Section 5.3.6 that Biodiversity, Fauna, Flora, Geology and Sediments, Water and Climatic factors have been scoped into the SEA assessment. NED also note that within Table 2 a justification has been provided. NED welcome this and is largely in agreement with these findings, however, in relation to cultural heritage we are in agreement with concerns raised by Historic Environment Division (HED) in that cultural heritage should be scoped in.

NED note from Section 6 that alternatives will be detailed in the Environmental Report. NED looks forward to reviewing these as part of the Environmental Report.

Please note following the decision of the United Kingdom to leave the European Union, the collective term of "Natura 2000" sites the network of European protected sites are

now known as “National Site Network” sites within the United Kingdom, and is including Northern Ireland.

It may be worth including in your considerations the following:

- The Wildlife (NI) Order 1985 (as amended)
- Wildlife and Natural Environment Act (NI) 2011
- The Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (as amended)
- The Environment (NI) Order 2002
- The Planning (Environmental Impact Assessment) Regulations (Northern Ireland) 2017
- The Strategic Planning Policy Statement (SPPS) for Northern Ireland
- Planning Policy Statements (PPS – in particular PPS2 and PPS18). It should be noted that the PPS's will be superseded by Local Development Plans when they are adopted.
- Draft Environment Strategy <https://www.daera-ni.gov.uk/consultations/esni-public-discussion-document>
- The Draft NI peatland policy: <https://www.daera-ni.gov.uk/consultations/ni-peatland-strategy-consultation>.
- The Draft Green Growth Strategy Consultation on the draft Green Growth Strategy for Northern Ireland | Department of Agriculture, Environment and Rural Affairs (daera-ni.gov.uk)
- Northern Ireland Energy Strategy 2050 Northern Ireland Energy Strategy 2050 | Department for the Economy (economy-ni.gov.uk)

DAERA have a map browser for NI protected sites and known priority habitat: www.daera-ni.gov.uk/services/natural-environment-map-viewer

A number of useful information sources that highlight the current state of the environment in Northern Ireland at a regional level and which could be referenced are:

Northern Ireland State of the Environment Reports:

<https://www.daera-ni.gov.uk/publications/state-environment-report-2013>

Northern Ireland Environmental Statistics Reports:

<https://www.daera-ni.gov.uk/articles/northern-ireland-environmental-statistics-report>

Other relevant web-links are;

Designated Scientific Sites: www.daera-ni.gov.uk/landing-pages/protected-areas

Regional Landscape Character Map viewer:

<https://www.daera-ni.gov.uk/services/regional-landscape-character-areas-map-viewer>

DAERA have a map browser for NI protected sites and known priority habitat:
www.daera-ni.gov.uk/services/natural-environment-map-viewer

Our natural environment datasets are available at the link below:
www.daera-ni.gov.uk/articles/download-digital-datasets

Appropriate Assessments should refer to the status of habitats and species in the relevant reports available on the JNCC website as follows: UK Article 17 report for the Habitats Directive <https://jncc.gov.uk/our-work/article-17-habitats-directive-report-2019/> and the UK Article 12 report for the Birds Directive <https://jncc.gov.uk/our-work/european-reporting/#birds-directive-reporting>

Air Quality & Biodiversity

In relation to 3.2. Existing Environmental Pressures, please include the comment that emissions from ships are an important source of air pollutants including sulphur dioxide (SO₂) and nitrogen oxides (NO_x) which have the significant health and environmental impacts.

Marine and Fisheries Division Comments Irish Sea Pelagic Fisheries Management Plan SEA Screening/Scoping report Marine Planning Team

The Marine Plan Team (MPT) DAERA – Marine & Fisheries Division welcome the opportunity to comment on the SEA Screening - Scoping Report for Irish Sea Pelagic Fisheries Management Plan.

Fisheries Management Plans set out how to manage fishing activity so the harvesting of fish stocks remain within sustainable levels. Irish Sea Herring are the main concern of this FMP and Screening – Scoping Report. Relevant Plans, Programmes and Environmental Protection Objectives Under the Domestic Sub-heading, it is advised the following should also be included:

- the Marine Act (Northern Ireland) 2013; and
- draft Marine Plan for Northern Ireland (2018).

Screening

MPT agree with the outcome of the screening exercise that the draft Irish Sea Pelagic FMP must be subject to environmental assessment.

Scope

It is recommended that for the purposes of transparency that Table 2 attributes the relevant UK MS descriptors of Good Environmental Status to the appropriate corresponding environmental issue, whether or not those issues are scoped in or not. An explanation or statement as to their relevance, or not, should also be provided.

Further Advice

If an objective led assessment is to be used for the Environmental Report, it is recommended that the appropriate UK MS descriptors are included in the corresponding objective. This will ensure the appropriate descriptors are used and considered to test the potential environmental impacts of the draft Plan.

Marine Conservation Branch Response

Marine Conservation Branch welcomes the opportunity to comment on the Irish Sea Pelagic Fisheries Management Plan SEA Screening/Scoping report and has the following comments:

- Marine Conservation branch welcome the following statement in Section 1.2.9: 'FMPs will adopt an ecosystem-based approach [...]'
- For Section 1.3.2 Objective 5 'Assess the impact of fishing for Irish Sea Herring in UK Irish Sea waters on the wider marine environment.' We recommend this should include considering both direct and indirect impacts such as marine litter, marine disturbance, marine entanglement, marine pollution, marine invasive non-native species, changes in predator/prey species behaviours as a result of fishing in an area and the removal of prey/predator species which could potentially lead to trophic cascade.
- In Section 3.2.1. 'The Marine Environment is subject to a range of pressures derived from human activities. [...]'. We recommend that this could be expanded to include examples such as climate change as this is directly impacting fisheries due to changes in fish distributions.
- For Section 3.3.1 '[...] management interventions will seek to reduce the environmental risks linked to over-fishing these stocks, thereby giving net positive benefit to the environmental status of these stocks.'. We would argue that this is not classed as net positive because sustainable fishing should be occurring as best practice therefore, additional positive changes would need to be implemented to achieve net positive benefit.
- Marine Conservation Branch welcome the following statement in Section 3.3.2 'Nevertheless harvesting within sustainable limits (MSY or appropriate proxies) may not remove all the associated potential negative impacts from fishing for these stocks on the wider marine environment, and additional measures to address risks or impacts may be required.'
- We welcome the policies listed in Section 4.2 and 4.3 however recommend also including the following:

- Draft Marine Plan for Northern Ireland (2018)
- Wildlife (Northern Ireland) Order 1985
- Marine Act (Northern Ireland) 2013
- An Integrated Coastal Zone Management Strategy for Northern Ireland 2006-2026

- In Table 2 we welcome the inclusion of Seascape.
- In Table 2 we welcome 'Biodiversity, Fauna and Flora' being scoped in. However we advise expanding the justification section to include the following (not an exhaustive list): - Disturbance to non-target species - Changes in predator/prey behaviour as a direct and indirect effect of fishing in an area - Changes in predator/prey availability due to the removal of species during fishing - Invasive species - Marine litter/pollution
- Please note, under Section 8.1.2 the proposed public consultation dates will need to be amended.

How the consultation response was considered

Point #	How point was considered
1. DAERA notes from the Scoping report no Zone of Influence has been included, DAERA recommends that this should be included within the Environmental report. Further, the scoping report does not mention any form of transboundary engagement, DAERA recommends that if the plans Zone of Influence extends into any other jurisdiction, then consultation with said jurisdiction should be considered.	Point noted. The FMP covers the Irish Sea herring stock in UK waters only, and includes actions related to engagement with Coastal State partners.
2. DAERA notes that no SEA objectives have been provided, in addition no targets or indicators have also been provided. Alongside SEA objectives, targets and indicators should also be provided within the Environmental Report.	The Environmental Report will examine how the goals and actions in the FMPs may result in both significant positive and negative environmental effects. Further details will be outlined in Section 2, Approach to Strategic Environmental Assessment. Additionally, the report will provide

Point #	How point was considered
	information on relevant indicators for the SEA.
3. NED notes from Section 3.1.1 that the Environmental Report will provide an overview description of the environmental baseline. NED would recommend that environmental data under each topic area includes maps where appropriate including areas where activities should not go. Details on existing environmental problems relevant to the plan should be identified in the context of relevant environmental objectives standards and thresholds. NED also recommend that a section on how the existing environment without the implementation of the plan should be included within each topic area in the Environmental Report. NED recommend that within the Environmental Report that any significant gaps in baseline data should be provided and if any alternative / proxy data sources are used where baseline data is unavailable. Any technical deficiencies or lack of know how should also be detailed. NED also note that that no section on interrelationships appear to have been included, this should be included in the Environmental Report.	Some recommendations will be included as part of the development process of the Environmental Report. The environmental baseline and the impacts on UKMS, MPA features, and Priority features will be informed by advice from SNCBs. Due to the high-level nature of FMP goals and actions, as well as their early stage of development, assessing the impact of area-specific management measures is unlikely to be possible at this stage. Before any changes to fisheries management are made as a result of the draft Irish Sea Pelagic FMP, new measures, where necessary, will undergo Habitats Regulations Assessments and Marine Conservation Zone assessments. These assessments will consider potential in-combination effects with other plans and projects within an MPA and will identify any specific interactions.
4. NED notes that Section 4 contains a list of Relevant Plans and Programs. NED advises that section would benefit from the inclusion of a number of additional plans and programs. These are provided at the end of the NED response. NED advise that details on any relevant conflicts and/or synergies between this plans objectives and the objectives of other plans and	Point noted. Additional plans/programmes will be considered as appropriate in the Environmental Report.

Point #	How point was considered
programs should be identified and described within the Environmental Report. Please note this should include transboundary plans or programs should they require consultation.	
5. NED notes from sections 5.1.1 and 5.1.3 that there is the potential to affect European sites or European offshore marine sites. NED note that no AA (Appropriate Assessment) screening appears to have been carried out at present. NED would recommend that an AA screening is carried out and dependent on the outcome of this a full AA. This would also be the case for a Marine Conservation Zone assessment for MCZs. NED would welcome the opportunity to review the completed AA screening and full AA should if be required and also any Marine Conservation Zone Assessment when they have been completed.	Relevant fisheries management measures will be developed as an outcome of the FMP process. At the time of developing fisheries management measures, Appropriate Assessments will be carried out on those proposed management measures, as required.
6. NED notes from Section 5.3.4 that the level of detail possible for the environmental assessment will depend upon the stage of development of the policies and measures of the FMP and that these are subject to evolution. NED advise that the SEA is therefore likely to require periodic reviews. NED would therefore like to see within the Environmental Report details of triggers which might be in place to ensure that the SEA remains up to date throughout the FMP process.	The Environmental Report will include more detailed information in Section 8, Monitoring and Review.
7. In relation to cultural heritage we are in agreement with concerns raised by Historic Environment Division (HED) in that cultural heritage should be scoped in.	Cultural heritage has been included within the scope of the SEA.

Point #	How point was considered
8. NED note from Section 6 that alternatives will be detailed in the Environmental Report. NED looks forward to reviewing these as part of the Environmental Report.	Point noted.
9. Please note following the decision of the United Kingdom to leave the European Union, the collective term of "Natura 2000" sites the network of European protected sites are now known as "National Site Network" sites within the United Kingdom, and is including Northern Ireland.	The term "Natura 2000" is not used within this Environmental Report.
10. In relation to 3.2. Existing Environmental Pressures, please include the comment that emissions from ships are an important source of air pollutants including sulphur dioxide (SO ₂) and nitrogen oxides (NO _x) which have the significant health and environmental impacts.	Text added to Section 3, Environmental Baseline.
11. Relevant Plans, Programmes and Environmental Protection Objectives Under the Domestic Sub-heading, it is advised the following should also be included: - the Marine Act (Northern Ireland) 2013; and - draft Marine Plan for Northern Ireland (2018).	Relevant reference to the Marine Act (Northern Ireland) 2013 is included in Section 4 of the ER. Relevant reference to the draft Marine Plan for Northern Ireland (2018) is included in Appendix D of the ER.
12. It is recommended that for the purposes of transparency that Table 2 attributes the relevant UK MS descriptors of Good Environmental Status to the appropriate corresponding environmental issue, whether or not those issues are scoped in or not. An explanation or statement as to their relevance, or not, should also be provided.	This is addressed in Table 3.

Point #	How point was considered
13. If an objective led assessment is to be used for the Environmental Report, it is recommended that the appropriate UK MS descriptors are included in the corresponding objective. This will ensure the appropriate descriptors are used and considered to test the potential environmental impacts of the draft Plan.	Point noted. In Table 4 in Section 5, Assessment of Environmental Effects, UK MS descriptors are linked to the policy goals.
14. For Section 1.3.2 Objective 5 'Assess the impact of fishing for Irish Sea Herring in UK Irish Sea waters on the wider marine environment.' We recommend this should include considering both direct and indirect impacts such as marine litter, marine disturbance, marine entanglement, marine pollution, marine invasive non-native species, changes in predator/prey species behaviours as a result of fishing in an area and the removal of prey/predator species which could potentially lead to trophic cascade.	Point noted
15. In Section 3.2.1. 'The Marine Environment is subject to a range of pressures derived from human activities. [...]'. We recommend that this could be expanded to include examples such as climate change as this is directly impacting fisheries due to changes in fish distributions.	Section 3, Environmental Baseline, considers climate change, and lines of text similar to this highlighted sentence have been edited to explicitly reference climate change is included.
16. For Section 3.3.1 '[...] management interventions will seek to reduce the environmental risks linked to over-fishing these stocks, thereby giving net positive benefit to the environmental status of these stocks.'. We would argue that this is not classed as net positive because sustainable fishing should be occurring as best practice therefore, additional positive	Point noted.

Point #	How point was considered
changes would need to be implemented to achieve net positive benefit.	
17. We welcome the policies listed in Section 4.2 and 4.3 however recommend also including the following: - Draft Marine Plan for Northern Ireland (2018) - Wildlife (Northern Ireland) Order 1985 - Marine Act (Northern Ireland) 2013 - An Integrated Coastal Zone Management Strategy for Northern Ireland 2006-2026	Relevant reference to the draft Marine Plan for Northern Ireland (2018) is included in Appendix D of the ER. Relevant reference to the Wildlife (Northern Ireland) Order 1985 has been added to Section 4. Relevant reference to the Marine Act (Northern Ireland) 2013 is included in Section 4 of the ER. Relevant reference Towards an Integrated Coastal Zone Management Strategy for Northern Ireland 2006-2026 has been added to Section 4.
18. In Table 2 we welcome 'Biodiversity, Fauna and Flora' being scoped in. However we advise expanding the justification section to include the following (not an exhaustive list): - Disturbance to non-target species - Changes in predator/prey behaviour as a direct and indirect effect of fishing in an area - Changes in predator/prey availability due to the removal of species during fishing - Invasive species - Marine litter/pollution	Added suggested list to Table 3.
19. Please note, under Section 8.1.2 the proposed public consultation dates will need to be amended.	Point noted.

Historic Environment Division



Historic Environment Division

10th August 2023

BY EMAIL ONLY

Subject: RE: THE IRISH SEA PELAGIC FISHERIES MANAGEMENT PLAN (FMP) STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) SCREENING / SCOPING REPORT

DfC Historic Environment Division (HED) operate via a Service Level Agreement with colleagues in DAERA in relation to SEA, whereby we provide authoritative comment and advice in relation to matters of Cultural Heritage including archaeological and architectural heritage. We make the following comments in respect of the documentation received by our office on 31 July 2023.

Historic Environment Division do not agree that cultural heritage is beyond the scope of the SEA. If the SEA does not include this topic, it will not have identified, described or evaluated likely significant effects in relation to "cultural heritage, including architectural and archaeological heritage" as set out in Schedule 2 of the Regulations.

The scoping report identifies that fishing activity covered by the plan has the potential to cause physical disturbance to the seabed. While we understand in relation to pelagic fishing trawling that the likelihood of impact may be somewhat reduced, the potential nonetheless remains to cause physical disturbance and potentially adverse impact to cultural heritage on and within the seabed.

HED consider that implementation of the plan objectives is likely to alter the spatial distribution, intensity, gear and methods of each fishery. Therefore, the plan is likely to change patterns of physical disturbance and therefore the potential for significant effects of these fisheries on cultural heritage. The plan objectives on potential

damaging impacts and the reduction of environmental impacts are directly relevant to cultural heritage. HED also advise of the potential for indirect effects, positive and negative in relation to cultural heritage associated with the fishing industry, -in that historic features such as harbours and dockland infrastructure might be sustained, or conversely potentially be impacted through new works or, abandonment in favour of new infrastructure.

HED have also observed that cultural heritage has been scoped into the following fisheries management plans which are out for consultation and consider that the approach taken here is inconsistent with the other UK regions:

- Proposed Fisheries Management Plan for Sea bass in English and Welsh Waters Strategic Environmental Assessment: Environmental Report, pg 24 - [Environmental Report Bass FMP July 2023.pdf](#) (defra.gov.uk)
- Proposed Fisheries Management Plan for Channel Demersal Non-Quota Species Strategic Environmental Assessment: Environmental Report, pg 30 - [Environmental Report Channel NQS FMP July 2023.pdf](#) (defra.gov.uk)
- Proposed Crab and Lobster Fisheries Management Plan Strategic Environmental Assessment: Environmental Report, pg 43 - [Environmental Report Crab and Lobster FMP July 2023.pdf](#) (defra.gov.uk)
- Proposed Fisheries Management Plan for king scallops in English and Welsh Waters Strategic Environmental Assessment: Environmental Report, Pg 35 - [Environmental Report King Scallop FMP July 2023.pdf](#) (defra.gov.uk)
- Southern North Sea and Eastern Channel Mixed Flatfish Fisheries Management Plan Strategic Environmental Assessment: Environmental Report, pg 26 - [Environmental Report Flatfish FMP July 2023.pdf](#) (defra.gov.uk)
- Proposed Fisheries Management Plan for Whelk in English Waters Strategic Environmental Assessment: Environmental Report, pg 32 - [Environmental Report for Whelk FMP July 2023.pdf](#) (defra.gov.uk)

HED would also highlight potential for positive interactions between fishing and cultural heritage. This includes the potential for reporting of archaeological objects brought up in nets/as part of the catch. HED also advise of the important cultural heritage of fishing in itself, ranging from wrecks of vessels to historic harbours and maritime structures, and settlements/communities that owe their origins/success to the industry. The potential positive interactions between fishery management plans and heritage are a further source of (beneficial) impacts and add yet more weight to the need for cultural heritage to be within the scope of the SEAs.

In terms of the data sources relevant as evidence bases in relation to any future scoping of Northern Ireland’s cultural heritage we advise that our historic-environment-digital-datasets (downloadable spatial data) and our Historic Environment Map Viewer will be pertinent resources. The resources outlined within the report are all from HERoNI – the historic environment record of Northern Ireland, an organic record subject to augmentation as new information comes to light. We further advise that datasets specific to the marine historic environment, including shipwrecks and recorded losses may be obtained through contacting HED.

HED consider that the following plans, programmes are relevant to fisheries management plans with regard to historic environment considerations and commitments around cultural heritage.

International

- Convention for the Protection of the Archaeological Heritage of Europe (Valletta) 1992
- Convention for the Protection of the Architectural Heritage of Europe (Granada) 1985

National level (NI- related plans, programmes and legislation which relate to cultural heritage, and in some cases across other topics as well)

- Conservation Principles guidance | Department for Communities (communities-ni.gov.uk).
- Historic Monuments and Archaeological Objects (NI) Order 1995
- Planning (NI) Act 2011
- Archaeology 2030, A Strategic Approach for Northern Ireland

How the consultation response was considered

Point #	How point was considered
1. Historic Environment Division do not agree that cultural heritage is beyond the scope of the SEA. If the SEA does not include this topic, it will not have identified, described or evaluated likely significant effects in relation to “cultural heritage, including architectural and archaeological heritage” as set out in Schedule 2 of the Regulations.	Cultural heritage has been included within the scope of the SEA.

2. The scoping report identifies that fishing activity covered by the plan has the potential to cause physical disturbance to the seabed. While we understand in relation to pelagic fishing trawling that the likelihood of impact may be somewhat reduced, the potential nonetheless remains to cause physical disturbance and potentially adverse impact to cultural heritage on and within the seabed.	Cultural heritage has been included within the scope of the SEA.
3. HED consider that implementation of the plan objectives is likely to alter the spatial distribution, intensity, gear and methods of each fishery. Therefore, the plan is likely to change patterns of physical disturbance and therefore the potential for significant effects of these fisheries on cultural heritage. The plan objectives on potential damaging impacts and the reduction of environmental impacts are directly relevant to cultural heritage. HED also advise of the potential for indirect effects, positive and negative in relation to cultural heritage associated with the fishing industry, -in that historic features such as harbours and dockland infrastructure might be sustained, or conversely potentially be impacted through new works or, abandonment in favour of new infrastructure.	Cultural heritage has been included within the scope of the SEA.
4. HED have also observed that cultural heritage has been scoped into the following fisheries management plans which are out for consultation and consider that the approach taken here is inconsistent with the other UK regions	Cultural heritage has been included within the scope of the SEA.

5. HED would also highlight potential for positive interactions between fishing and cultural heritage.	Cultural heritage has been included within the scope of the SEA.
6. HED consider that the following plans, programmes are relevant to fisheries management plans with regard to historic environment considerations and commitments around cultural heritage.	Relevant reference to the Convention for the Protection of the Archaeological Heritage of Europe (Valletta) 1992 is included in Section 4 of the ER.
International	Relevant reference to Convention for the Protection of the Architectural Heritage of Europe (Granada) 1985 is included in Section 4 of the ER.
• Convention for the Protection of the Archaeological Heritage of Europe (Valletta) 1992 • Convention for the Protection of the Architectural Heritage of Europe (Granada) 1985	Relevant reference to the Department for Communities 'Conservation Principles' guidance is included in Section 4 of the ER.
National level (NI- related plans, programmes and legislation which relate to cultural heritage, and in some cases across other topics as well)	Relevant reference to the Historic Monuments and Archaeological Objects (NI) Order 1995 is included in Section 4 of the ER.
• Conservation Principles guidance Department for Communities (communities-ni.gov.uk). • Historic Monuments and Archaeological Objects (NI) Order 1995 • Planning (NI) Act 2011 • Archaeology 2030, A Strategic Approach for Northern Ireland	Relevant reference to the Planning (NI) Act 2011 is included in Section 4 of the ER.
	Relevant reference to Archaeology 2030, A Strategic Approach for Northern Ireland, is included in Section 4 of the ER.

Historic England

22nd September 2023

BY EMAIL ONLY

Many thanks for your email regarding SEA scoping for Irish Sea Pelagic and Irish Sea Demersal FMPs.

I had rather hoped that these would reflect advice we have provided previously and which has helped frame subsequent SEA scoping and the current frontrunner FMP consultations. Unfortunately, the two Irish Sea FMPs adopt the earlier approach of scoping-out cultural heritage and landscape. Not only is this unacceptable from our perspective, insofar as cultural heritage and landscape have now been scoped-in to the frontrunner plans, it appears that Defra accepts the validity of our previous advice.

Time is of course of the essence and I don't particularly want to repeat our previous advice on otherwise analogous demersal and pelagic fisheries: you are already aware of this advice and have clearly taken it into account with respect to the five frontrunner FMPs. For reference, I have attached our earlier advice on the two tranches of frontrunner plans: this previously offered advice also applies to these two FMP SEAs.

In the interests of speeding up statutory consultation, I would welcome your confirmation that the approach of scoping-in cultural heritage and landscape – and taking onboard the other advice we have provided – will be incorporated into the remaining FMP SEA screening and scoping phases, including those originating with other Coordinating Authorities.

I have copied this to my colleague, at Marine Historic Environment Adviser at DAERA – for information.

As before, I would like to thank you for seeking HE's views on this tranche of FMP SEAs. HE would be very pleased to continue conversations with Defra about how cultural heritage can best strengthen the effectiveness of the FMPs in contributing to sustainable and well managed UK fisheries. Any queries regarding this response or further dialogue can be addressed to me via the contact details below.

How the consultation response was considered

Point #	How point was considered
Unfortunately, the two Irish Sea FMPs adopt the earlier approach of scoping-out cultural heritage and landscape.	Cultural heritage and landscape have been included within the scope of the SEA.

For reference, I have attached our earlier advice on the two tranches of frontrunner plans: this previously offered advice also applies to these two FMP SEAs.	Point noted.
I would welcome your confirmation that the approach of scoping-in cultural heritage and landscape – and taking onboard the other advice we have provided – will be incorporated into the remaining FMP SEA screening and scoping phases, including those originating with other Coordinating Authorities.	Cultural heritage and landscape have been included within the scope of the SEA. Previous advice on Defra's frontrunner FMPs will be taken into account.

Natural Resources Wales



29 September 2023

By e-mail

STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) SCOPING REPORT FOR
THE IRISH SEA PELAGIC FISHERIES MANAGEMENT PLAN (FMP) FOR
NORTHERN IRELAND, ENGLAND AND WALES

Thank you for consulting Natural Resources Wales (NRW) on the SEA Scoping Report for the Irish Sea Pelagic FMP for England and Wales.

The statutory purpose of NRW is set out by the Environment (Wales) Act 2016. In the exercise of its functions NRW must pursue sustainable management of natural resources in relation to all of its work in Wales and apply the principles of sustainable management of natural resources in so far as that is consistent with the proper exercise of its functions. NRW's duty (in common with the other public bodies covered by the Well-Being of Future Generation (Wales) Act 2015) is to carry out sustainable development. This means, in general terms, looking after air, land, water, wildlife, plants, and soil to improve Wales' well-being, and provide a better future for everyone. NRW are also advisors to the Welsh Government on the natural heritage and resources of Wales and its coastal waters.

Under the Environmental Assessment of Plans and Programmes Regulations (EAPPR) 2004 (as amended), NRW is a statutory consultee for all plans, programmes & strategies (PPS) within Wales and for those outside Wales whose effects could extend in to and have effects upon the environment of Wales. NRW is also the appropriate nature conservation body for Wales under the Conservation of Habitats and Species Regulations 2017 (as amended) in relation to sites within 12 nautical miles of the coast. Our comments are therefore provided in the context of this responsibility. It is

relevant for NRW to comment on the application of each of the Regulations in relation to the Irish Sea Pelagic FMP, because this directly affects our ability to comment on the environmental effects of the Irish Sea Pelagic FMP, as per our role.

Proposed scope of the Environmental Report

NRW welcomes the principle of the FMP programme, and the opportunity this FMP provides to deliver sustainable management of the Irish Sea Pelagic fishery in Welsh waters.

Undertaking of the SEA (and a *plan-level* Habitats Regulations Assessment) is a key step in ensuring the FMP delivers sustainable management of this marine natural resource, as it will allow a collective understanding of the effect of implementing the FMP on the environment, and the opportunity to mitigate and manage any negative effects.

NRW continues to have concerns, however, about the proposed scope of the Environmental Report for the FMP as currently set out in Section 5 of the Scoping Report. These concerns reflect our previous advice given on the scope of the SEAs for the king scallop FMP and bass FMP. It appears that our previous advice is not being considered and reflected for subsequent FMP SEA scopes. Based on the proposed scope of the Environmental Report, we advise that it is likely that the Environmental Report will be inadequate, as it will not assess the effect of implementing the policies within the FMP.

Following internal assessment, including receipt of NRW's own legal advice, on the king scallop FMP SEA Scoping Report, NRW is of the view that the scope of the Irish Sea Pelagic FMP is similarly narrower than what is required by Regulation 12 of the EAPPR 2004.

Regulation 12(2) of the EAPPR 2004 states that "*The report shall identify, describe and evaluate the likely significant effects of:*

a) implementing the plan or programme; and

b) reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme."

Section 5.3.2 of the Scoping Report states that "*The SEA will not assess all the risks and impacts of fishing activity per se*" and goes on to state "*It is the FMP itself, as a management plan, that will be assessed rather than the activities themselves*".

NRW advises that it is our view that the proposed scope does not satisfy the requirements of the EAPPR 2004. It is our advice that it is not sufficient to assess the effect of a plan on the environment rather than the effect of the activity considered by

the plan on the environment. NRW therefore suggest Section 5.3.2 of the SEA Scoping Report is amended as follows:

- *The Environmental Report will identify, describe and evaluate the likely significant effects on the environment of implementing the FMP and reasonable alternatives taking into account the objectives and the geographical scope of the FMP. The Environmental Report will also take into account assessments which have already been carried out in relation to the risks and impacts from fishing activities as part of the UK's obligations under legislation relating to Marine Protected Areas (MPAs) and the wider marine environment (UK MS).*
- *The Environmental Report will acknowledge those pressures resulting from current fishing activity being managed and explain how the FMP will support existing mitigation. The Environmental Report will also set out measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the FMP.*

NRW advises that the assessment of likely significant effects within the Environmental Report considers the potential changes in the fishing activity from implementing the FMP. We have highlighted areas that may result in potential changes to the fishing activity as a result of implementing the FMP in an Annex to this letter. The effects of the ongoing fisheries on the environment will therefore need to be established first, before any meaningful assessment of the changes resulting from implementing the FMP can be made.

The purpose of undertaking the SEA process is to prevent, reduce and as fully as possible offset any significant adverse impacts on the environment from the proposed objectives, policies and management interventions before the FMP is introduced. As previously set out in our advice on the king scallop and bass FMP SEA Scoping Reports, it is important that Welsh Government scope the Environmental Reports for the first tranche of FMPs correctly, as they will inform the SEA process for each of the remaining FMPs including the required in-combination assessment as each FMP will be a relevant PPS. Unfortunately, it appears that our advice is not being taken on board and subsequent FMPs are not adequately scoping the SEA requirements.

SEA scoping process

Without a detailed description of the actions that might arise from the implementation of the FMP within the Scoping Report, it has been challenging for NRW to provide meaningful advice on the scope of the Report or to identify potential effects, mitigation or wider management that may be required in advance of the Environmental Report.

Due to the limited amount of detail provided within the Scoping Report, NRW does not believe the SEA scoping process has been used effectively. Investing in the SEA scoping process would have focussed the content of the Environmental Report and

maximised the benefits of the process as a whole for sustainably managing and developing the fishery in Wales.

Requirements of the Conservation of Habitats and Species Regulations 2017 (as amended)

Section 5.1 of the SEA Scoping Report describes the process and results of undertaking the required test of likely significant effect of the FMP under Regulation 63 of the Conservation of Habitats and Species Regulations 2017 (as amended). DAERA, Welsh Government and Defra concluded that the draft Irish Sea Pelagic FMP:

“a. is likely to have a significant effect on a European site or a European offshore marine site; and

b. has the potential to deteriorate or disturb the interest features of a European site or a European offshore marine site; and

c. is not directly connected with or necessary to the management of such European sites.”

Therefore, before it can be introduced, the fisheries policy authorities (FPAs) must produce an appropriate assessment of the implications of the FMP on relevant European site(s) in view of their conservation objectives, and consult with the appropriate nature conservation bodies on the appropriate assessment.

NRW advises that the potential changes in the fishing activity resulting from implementing the FMP are considered within the appropriate assessment. The effects of the fisheries on the features of sites will therefore need to be established first, before any meaningful assessment of the changes resulting from implementing the FMP can be made.

Further advice

NRW has provided further detailed comments on the Scoping Report in an Annex to this letter. In our detailed comments we highlight information that we consider necessary to ensure that the Environmental Report is comprehensive and addresses the effects of implementing the Irish Sea Pelagic FMP.

Annex

This annex provides more detailed comments on the SEA Scoping Report, where we highlight information that we consider necessary to ensure that the Environmental Report is comprehensive and addresses the effects of implementing the Irish Sea Pelagic FMP.

Scoping Report approach

1. The Scoping Report provides a high-level overview of the FMP objectives and description of the Environmental Report process. However, it does not provide adequate information for NRW to make a meaningful response in relation to the proposed scope and content of the Environmental Report.
2. The FMP was not provided with the Scoping Report consultation. Having sight of the current draft FMP as part of the formal consultation would have assisted in understanding the approach, content and scope of the Environmental Report. It would also have allowed us to provide more detailed comments. Furthermore, no information on the location and scale of the existing or potential Irish Sea Pelagic fisheries has been provided in the Scoping Report.
3. We consider that the FPAs correctly screened the FMP into the SEA process as set out in Section 5.1 of the Scoping Report, due to the potential effects of the fishing activity and implementation of the FMP on the marine environment.
4. Table 2 of the Scoping Report presents the scoping exercise to determine the environmental issues likely to be significantly affected by the FMP and thus scoped into the Environmental Report. Limited information has been provided in the Scoping Report to help understand why certain issues have been scoped out in Table 2. It is clear, however, from the description in Table 2 that the impacts from the activity of the fishery on the environment will need to be considered in the Environmental Report (and *plan-level* HRA as set out in Section 5.1 of the Scoping Report). However, paragraph 5.3 states '*It is the FMP itself, as a management plan, that will be assessed rather than the activities themselves.*' This approach limits and confuses the scope of the SEA.
5. It is clear the FMP will set out objectives, policies and management interventions that will geographically overlap with protected marine features. Therefore, it is our understanding that an assessment of the effects of potential changes in the fishing activity resulting from implementing the FMP on those features should be made in the Environmental Report (and *plan-level* HRA as set out in Section 5.1 of the Scoping Report).

Scoping Report content

6. NRW supports the inclusion of assessments, mentioned in Section 5.3 of the Scoping Report, that have already been conducted as part of the UK's obligations under legislation relating to MPAs and the wider marine environment. These include Defra's completed Revised Approach to fisheries management programme (inside 6nm) and the MMO's ongoing Fishery Assessment programme (outside 6nm).
7. However, NRW advises that the FPAs cannot rely on either of these work programmes in relation to Welsh waters as they are both geographically limited to English waters.

8. It would have been beneficial to have included the detail and outputs of both these work programmes within the Scoping Report. This would help establish the coverage and scope of the assessments being relied upon to have already assessed and managed the impacts from pelagic trawling within MPAs. Their inclusion would have provided confidence in the proposed approach to the Environmental Report.

9. It is unlikely that existing assessment and management programmes have sufficiently and comprehensively assessed all the pressures and impacts that will result from the FMP objectives, policies and management interventions in all MPAs. The Scoping Report process could have been used to highlight gaps where it is not possible to rely on existing assessments and requested advice and relevant information to support the Environmental Report's assessment of those gaps.

10. In terms of European marine sites, Welsh Government will need to consider the impacts from the FMP both within and outside 12nm of the coast and on mobile species features wherever they are.

11. SSSIs are intertidal and so are unlikely to be affected by the fishing activities unless they occur in shallow inshore or intertidal waters.

12. WFD water bodies in Wales may also be affected by the fishery if the activity occurs within them, and in particular as fish species are a quality element of transitional water bodies.

13. Skomer is the only Marine Conservation Zone (MCZ) in Wales. Pelagic trawling is not currently prohibited from Skomer MCZ. The impacts from the FMP objectives, policies and management interventions will therefore need to be assessed in relation to the MCZ.

14. NRW advises that Welsh Government should also consider the Welsh MCZ pre-consultation engagement process to select and designate new MCZs in Wales. When new MCZ sites are designated, assessment and potential management of activities, such as pelagic trawling, that may affect features will be required.

15. NRW advises that Welsh Government also consider the impacts from the fishery on Good Environmental Status under The Marine Strategy Regulations 2010. NRW advises that the fishery could impact biodiversity (D1), potentially introduce marine invasive non-native species (INNS) (D2), affect commercial fish species (D3), affect food webs (D4), impact seafloor integrity (D6) and potentially introduce litter to the marine environment (D10).

16. We advise that Welsh Government should also consider their duties under the Environment Act (Wales) 2016. Section 6 of the Act requires that public authorities must seek to maintain and enhance biodiversity [of the Section 7 habitats and species]

so far as consistent with the proper exercise of their functions and in so doing promote the resilience of ecosystems.

17. NRW advises that the Environmental Report also considers the Welsh Natural Resources Policy, relevant parts of Area Statements and the biodiversity and resilience of ecosystems under the Environment Act (Wales) 2016.

18. NRW advises that the Scoping Report also considers the impacts on ecosystem resilience through impacts on its 4 measurable attributes – Diversity, Extent, Condition & Connectivity of Ecosystems Assessment (DECCA)²⁸.

19. There are other pressures on stocks of sea fish that may affect their ability to be maintained at, or restored to, sustainable levels, for example climate change, energy generation, aggregate dredging etc. It is not clear whether the FMPs will consider these wider pressures and implement objectives, policies or management to address them.

20. The Scoping Report does not include any of the relevant PPS relating to other marine sectors such as offshore energy (oil, gas, renewables), cabling, aggregate extraction etc. in Section 4. It also does not consider other FMPs as relevant PPS.

21. While presenting a list of PPS in Section 4, the Scoping Report does not provide any further information on their links and interactions with the FMP, for example which PPS might affect, or be affected by, the FMP.

22. The Scoping Report does not consider the possibility of in-combination or cumulative impacts with other fisheries or other marine sectors such as offshore energy (oil, gas, renewables), cabling, aggregate extraction etc.

23. The Scoping Report does not consider the impacts from displacement of fisheries due to fisheries management measures or spatial squeeze from MPAs or offshore renewables.

24. No proposals for future monitoring have been provided in the Scoping Report.

25. The Scoping Report has not identified any key evidence gaps or needs to be considered when designing monitoring.

26. No explanation of how the FMP's objectives will be achieved has been provided in the Scoping Report.

²⁸ [Ecosystem Resilience](#)

27. The Scoping Report does not present an appropriate, relevant set of guide questions which will allow the assessment of significant effects.

28. The assessment criteria to be used in the Environmental Report have not been provided in the Scoping Report.

29. The Scoping Report does not define levels of significance.

30. The Scoping Report does not identify alternatives or describe a process for producing realistic and achievable alternatives.

Environmental Baseline

31. No baseline environmental information has been provided within the Scoping Report. This is a missed opportunity to scope the content before producing the Environmental Report.

32. The proposed use of the UKMS descriptors alone to define the baseline environment condition is likely to be insufficient. The UKMS descriptors are high level and broad. The Scoping Report does not describe the environmental baseline, at a scale and level of detail appropriate for the Environmental Report. The Scoping report does not identify any existing environmental issues, challenges or tensions with the proposed baseline.

33. Section 3.2 of the Scoping Report acknowledges that the marine environment is subject to a range of pressures derived from multiple human activities. It is important that the environmental baseline differentiates between the influence of other marine activities and the fishing activities being considered.

34. In addition, the baseline needs to sufficiently reflect regional issues. The status of the marine environment or baseline in areas where pelagic trawling is occurring (or may occur in the future) may be significantly different to the UK-wide UKMS descriptor assessment, due to the effect of the fishing activity acting on the receptors in that area. This is not captured within the Scoping Report.

35. The Scoping Report does not identify likely future trends in the environmental baseline in the absence of the FMP.

Receptor advice

36. The objectives included within Section 1.4 of the FMP Scoping Report are high level and do not provide sufficient detail to be able to meaningfully consider what the potential effects of the FMP on relevant receptors will be.

37. NRW welcome the FMP Scoping Report scoping in the assessment of effects upon '*Biodiversity, fauna and flora*'. However, no detail of the methodologies to be used in

the Environmental Report assessment have been provided and therefore it is not possible for NRW to advise on whether the report will sufficiently assess all the relevant effects of the FMP on the relevant receptors.

38. NRW advises that the Environmental Report fully considers and assesses the positive and negative effects that the FMP could have on relevant habitat and species features in Welsh waters. These negative effects could occur, for example, through changes to fishing effort (increased effort, spatial changes in effort, displacement of effort), or changes to fishing methods etc. from implementing the FMP.

39. Potential negative effects resulting from the FMP on species features in Welsh waters could include, for example, increased bycatch or collisions, increased disturbance, and reduced prey availability.

40. In addition, it is not clear to what extent the fishing activities considered in the FMP would repeatedly affect the same areas of seabed, thereby limiting the footprint of the activity but increasing impacts.

41. Consideration within the Scoping Report in relation to cultural heritage is limited to maritime heritage assets. This appears to be at odds with the emphasis placed on cultural importance in Section 1.2 which states that *'decisions should recognise the cultural importance of fishing through maintaining and, where possible, strengthening coastal communities and livelihoods alongside the requirement for fish stocks to reach and maintain sustainable levels'*.

42. NRW advises that in relation to Wales and the Welsh Government's Well-being of Future Generations Act 2015 responsibilities, this view of cultural heritage is too narrow, and NRW advises that Welsh Government also considers the impacts of the FMP on Welsh coastal communities, populations and language.

Additional Comments

43. NRW advises that some of the FMP objectives in Section 1.3 of the Scoping Report may result in increases in fishing effort or changes to fishing methods and spatial distribution, and these potential changes should be assessed in the Environmental Report (and *plan-level* HRA).

44. NRW advises that the impacts of climate change is assessed from the fishery and on the fishery.

45. NRW advises that it is not clear how additional measures to address risks or impacts identified in the Environmental Report will be determined, or how these will be secured and delivered. For example, whether mitigation identified through the Environmental Report (and *plan-level* HRA) will be written into the final FMP as part of an iterative development process.

46. NRW advises that the objectives do not indicate how the FMP will consider wider fisheries management issues including those related to the environment. FMP objectives relating to the environment are listed but it does not indicate how the FMP will address potential negative impacts from the fishery on receptors.

47. NRW advises that the FMP objectives do not include proposing new interventions (Section 5.3) to further mitigate negative environmental effects where necessary.

48. Table 2 Population – Whilst it is beyond our remit, this topic covers economic and societal factors that could affect or change local coastal populations, so will be relevant given the focus of the FMP on coastal communities and the economic benefits of pelagic trawl fisheries.

49. Section 7 – NRW advises that the final FMP will need to consider and address any negative effects of the draft FMP assessed through the Environmental Report (and *plan-level* HRA).

How the consultation response was considered

DAERA, Welsh Government and DEFRA have consulted with statutory nature conservation advisors including Natural Resources Wales (NRW) with regards to the scope and level of detail the Irish Sea Pelagic SEA environmental report (ER). Some comments provided by NRW, as part of the consultation in preparation of the ER, have already been addressed by the ER. Outstanding comments/advice including the timing of Habitats Regulations Assessments (HRA) are considered below.

The FMP follows a high-level strategic assessment framework using UK Marine Strategy descriptors as benchmarks for environmental assessment.

An assessment of the FMP goals are set out in section 5 of the ER. Many of the FMP goals have the potential to recommend subsequent inshore and offshore management measures which may change the characteristics of the relevant fisheries in some way and a reasonable summary of positive and negative effects are provided.

Changes to the fishery could be spatial, temporal or effort linked. However, it is important to draw the distinction between the possible effects of high-level strategic objectives being met and any resulting recommended management measure being adopted.

In both statutory and practical terms, until management measures are identified through the FMP implementation process, any effects cannot be reliably identified and assessed. Until proposed FMP actions have been considered and suitable management measures identified, it would not be possible to attempt to assess the type or scale of resultant impacts or effects on relevant MPAs and associated protected habitats and species.

Before any recommended management change is implemented, changes to fishery regulations controlling the existing fishery would be required. This legislative change would provide the appropriate opportunity to fully assess the then known scope and

potential impacts or effects of the new management change in line with the Conservation of Habitats and Species Regulations 2017 and address any outstanding advice provided by NRW. Before this point, no real-world changes which may subsequently be caused (and assessed via HRA) as a result of a potential management change could be transmitted through to any protected Welsh MPAs, habitats or species because the FMP itself is not making any management changes or implementing new management measures.