Advice from Natural England and JNCC

Northern Shelf Hake FMP

Advice issued 31 January 2024

Executive Summary

This advice forms part of a commission from Defra to Natural England and JNCC to provide nature conservation advice to support the development of England and UK Fisheries Management Plans (FMPs). The advice provides information on the risks arising from the fisheries contained in the Northern Shelf Hake FMP to:

1. the designated features of Marine Protected Areas in English waters
2. UK Marine Strategy descriptors

Advice is presented separately for risks to MPA features and UK MS descriptors. Although the underlying impact pathways are very similar (e.g. bycatch poses a risk to both) and some species are both MPA features and are part of UK MS indicators, there are also important differences. The UK MS covers a much broader range of species than those protected by MPA designations, especially for cetaceans and fish. Also, the underlying objectives of the two legislative drivers are different and therefore there may be subtle but important differences to the ascription of risk and precaution.

The advice has scoped in demersal trawls, static nets and longlines as being the most relevant gear types for consideration. More specific information on gear types, location and fishing effort will improve the ability to assess risk within this FMP and may alter some of the risk-ratings[1] presented. The primary aim of the advice is to provide a pragmatic steer on where the greatest concerns lie for interactions between fishing gear types, the designated features of MPAs and UK MS descriptors.

Risks relating to the designated features of MPAs in English waters

Marine Protected Areas (MPAs) in English waters include Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) which are protected under the Conservation of Habitats and Species Regulations 2017 and the Conservation of Offshore Marine Habitats and Species Regulations 2017, collectively referred to as the Habitats Regulations. Additionally, Marine Conservation Zones (MCZs) are protected by the Marine and Coastal Access Act 2009. Impacts of activities are assessed against the conservation objectives of MPAs and activities should not have an adverse effect on the integrity of SACs or SPAs and should not hinder the conservation objectives of MCZs.

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[1] **Indicative risk ratings**

Low Risk: An impact pathway exists, but evidence or expert opinion suggests that impacts are minimal or unlikely. In the MPA context, any theoretical impact is either absent or minimal at the relevant scales for the considered FMP. For UKMS GES, impacts are unlikely to obstruct achieving GES based on current indicators.

Moderate Risk: Interactions deemed as moderate risk typically have an evidenced impact or expert judgment indicates a genuine risk. In the MPA context, the overall impact level might be ambiguous, possibly due to limited spatial overlap between gears and protected features, significant impact fluctuations over space and time, or differences between fisheries in the FMP and those from which the evidence base was derived. In the UKMS GES context, a clear impact pathway exists between the fishing gear and the relevant UK MS descriptors. However, further evidence might be needed, or other activities also significantly influence the current indicator status. FMPs are encouraged to consider straightforward mitigation options if a risk is found, even without conclusive evidence of GES or MPA feature condition impact, taking a proactive approach towards minimising impacts.

High Risk: Interactions identified as high risk are those where available evidence or expert opinion suggests a scale that is concerning and likely to require mitigation. In the MPA context, this scale is concerning relative to MPA conservation objectives, and the fishing activities managed by the FMP are believed to significantly contribute to these risks. In the UKMS GES context, a well-evidenced link exists between the gear type and the failure to attain GES for a UK MS descriptor based on current indicators, with the fishing activity within the FMP being assessed contributing significantly to that failure.

There are three primary ecological risks to MPA features arising from the gear types associated with hake fisheries; removal of target species, removal of non-target species, and impacts on habitats. These impacts can affect the designated features of MPAs both inside and outside the boundaries of MPAs.

Assessment of the impact of fishing activity occurring within MPAs in English waters has or will be carried out by the IFCAs or MMO. Therefore, appropriate management should either be in place or introduced soon (by end 2024) 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.

Considering the present assessments and management pathways, risks from fishing activities within English MPA boundaries are mitigated. Therefore, no extra action is recommended for the Fisheries Management Plan (FMP) within MPA site boundaries.

Risks relating to MPA features outside Marine Protected Area boundaries

The primary impacts of this fishery on MPA features outside site boundaries, with an indication of their risk level are summarised below.

- **There is a high risk to the conservation status of designated mobile species (birds and mammals) from static nets.**
- **There is a high risk to the conservation status of seabirds from longlines.**
- **While the risk to the conservation status of designated mobile species from demersal trawls is generally considered low, there are still significant gaps in the available evidence. As a result, the FMP risk rating has been upgraded to moderate, taking a precautionary approach into account. Gathering additional evidence has the potential to downgrade this risk in the future.**

Enhanced understanding of these risks, bolstered by stakeholder insights, will guide decisions on potential mitigation measures. We anticipate providing more detailed insights on these matters in future and look forward to engaging with the Fisheries Management Plan (FMP) working group for more in-depth discussions.

Risks relating to UK Marine Strategy descriptors

The UK Marine Strategy Regulations 2010 (SI 2010/1627) provide the policy framework for delivering marine environmental policy at the UK level and set out how the vision of clean, healthy, safe, productive and biologically diverse oceans and seas will be achieved. The Regulations place a number of duties on the Defra Secretary of State, including the need to define the characteristics of Good Environmental Status (GES) and in turn develop an associated Programme of Measures required to deliver GES. Good Environmental Status (GES) establishes a 'benchmark' for our seas which seeks to '*protect the marine environment, preventing its deterioration and restoring it where practical, while allowing sustainable use of marine resources'*. For each descriptor there are a number of practical targets and indicators that facilitate assessment of our delivery against each descriptor. This advice focuses only on the most relevant descriptors in terms of risks posed by commercial and recreational fisheries: D1 biodiversity, D3 commercial fish and shellfish, D4 foodwebs, D6 seafloor integrity and D10 marine litter.

In the UK MS, these descriptors are assessed using indicators for each of their constituent 'ecosystem components.' This is carried through to this advice resulting in advice on risks to

eight descriptor-ecosystem component combinations: D1, D4 cetaceans; D1, D4 seals; D1, D4 seabirds; D1, D4 fish; D4 foodwebs; D1, D6 seafloor integrity and D10 Marine Litter.

Following initial advice development, three descriptor-ecosystem components have been scoped out of this advice for the following reasons:

- D3 commercial fish and shellfish: Achieving MSY is a foundational aim of the FMP and other Arm's-Length Body (ALB) advice packages seek to support delivery of this. Therefore, we do not provide further advice on D3. However, we do consider management of stocks where risks arise for UK MS descriptors which may be impacted by reductions in prey.
- D1, D4 Fish: Fisheries pose a risk to this indicator through bycatch pressures. However, further work by ALBs is required to understand whether management advice can be derived which would improve the status of the complex indicators for this descriptor, comprised, as they are, of over 100 sensitive species.
- Remaining D4 indicators (i.e. those not covered under cetaceans, seals, and seabirds) - further work by ALBs is required to understand whether management advice can be derived which would improve the status of the indicators for this descriptor which relate to fish and plankton community structure.

The UK Marine Strategy Regulations require management action to be taken to achieve or maintain GES. The Fisheries Act (2020) enables regulators to deliver on this ambition through the Ecosystem Objective, which states that fish and aquaculture activities should be managed using an ecosystem-based approach, which is, in-part, defined in the Act by the achievement of GES. Equally, the recently published Joint Fisheries Statement (2022) lays out the ambition across UK administrations to take action to achieve or maintain Good Environmental Status (GES) in all UK waters (Joint Fisheries Statement, 2022).

Previous work by Natural England investigating the impact of the pressures associated with the fishing industry across all 11 descriptors of Good Environmental Status (GES)[2] in the UK marine environment has highlighted 6 key issues[3]. Of these issues, only a subset will be relevant to any particular fishery / sector.

The main interactions between the Northern Shelf Hake FMP and UK MS Descriptors that have been identified in Section 3 of this advice are summarised below. The high-level assessments flag the potential risk based on the predominant gear types used across a range of fisheries. We have not split into the individual GES risks associated with each component fishery.

- **There is a high risk to achieving GES for seafloor integrity (D6 & D1) due to benthic disturbance caused by demersal trawls and the contribution to current failure to meet targets. Strategic work at a broad geographic scale is required to identify opportunities to mitigate risk and understand trade-offs.**
- **There is a high risk to cetaceans (D1 & D4) from static nets.**
- **There is a high risk to seabirds (D1 & D4) from longlines.**
- **There is a moderate risk to seals and seabirds (D1 & D4) from static nets**

[2] The 11 descriptors include: biodiversity; non-indigenous species; commercial fish; food webs; eutrophication; sea-floor integrity; hydrographical conditions; contaminants; contaminants in seafood; marine litter and underwater noise. For more information, see Introduction to UK Marine Strategy (cefas.co.uk)

[3] Key issues are: impact of the removal of targeted species on the status of fish stocks; benthic disturbance related pressures associated with towed demersal gear; impact of the removal of targeted fish stocks on other species / wider environment; impact of bycatch (bird / mammal / fish) on biodiversity, food webs or stocks; fishing related sources contributing to marine litter; noise from pingers / acoustic deterrents contributing to marine noise.

- **While the risk from demersal trawls to achieving GES for marine mammals and seabirds (D1 & D4) is generally considered low, there are still significant gaps in the available evidence. As a result, the FMP risk rating has been upgraded to moderate, taking a precautionary approach into account. Gathering additional evidence has the potential to downgrade this risk in the future.**
- **There is a moderate risk to achieving GES for marine litter (D10) due to abandoned, lost or discarded fishing gear.**

The detailed advice put forth in this report includes several recommendations for the Northern Shelf Hake FMP aimed at identifying and minimizing the associated risks to UK MS descriptors. A primary concern is the high bycatch rate of marine mammals and birds in static nets and longlines, and it is recommended that this issue be addressed through modifications to gear design, changes in fishing practices, and the establishment of spatial or temporal closures in areas of high bycatch risk. The imperative for enhanced mitigation strategies is evident, and the Bycatch Mitigation Initiative is anticipated to provide a comprehensive forum for addressing this matter. Current mitigation strategies for both cetaceans and seabirds in the gillnet fishery are deemed inadequate (French et al., 2022). Given the high risk of seabird bycatch associated with longline fishing, the report made a number of recommendations to help mitigate impacts of the activity. However, it is likely that the success of mitigation action will be dependent on the fishery being assessed. Moreover, the report underscores the need for improved data collection in inshore regions, where elevated bycatch rates may occur due to the close proximity to seabird breeding colonies.

Further work between Defra and its ALBs is recommended to elucidate management advice for D1, D4 fish – the indicators for which are complex and include a long list of sensitive fish species. Many of the recommendations identify the need for a strategic, joined-up approach between FMPs, industry, Defra, ALBs and other stakeholders to find and implement solutions.