

Habitats Regulations Assessment

Commercial fishing within
Marine Protected Areas
(MPAs) in the Northern
Ireland offshore region
June 2026

Photograph attribute: Good Food Ireland®



Department of
**Agriculture, Environment
and Rural Affairs**

An Roinn

**Talmhaíochta, Comhshaoil
agus Gnóthaí Tuaithe**

Department o'

**Fairmin, Environment
an' Kintra Matthers**

www.daera-ni.gov.uk

Habitats Regulations Assessment

In accordance with Regulation 43(1) of the Conservation (Natural Habitats, etc) (Northern Ireland) 1995 (as amended), DAERA Marine Conservation has considered whether the application (not being directly connected with or necessary to the management of the site) is likely to have a significant effect on the UK National Site Network sites.

As part of that consideration, DAERA Marine Conservation has:-

- a) Taken into account the mitigation measures contained in each application, along with all legally enforceable obligations designed to avoid environmental effects; and
- b) Applied the precautionary approach set out in Commission Guidance: Managing UK National Site Network sites and as required by the European Court of Justice in C 127/02 (Waddenzee).

Stage 1: Test of Likely Significance (Screening)

Name of project:

Commercial fishing (using bottom contacting mobile gear) within Special Areas of Conservation (SACs) in the Northern Irish offshore region.

Name and location of UK National Site Network site:

North Channel (NI) SAC

Area: 160367.0 ha

EU site code: UK0030399

Site centre location: Latitude 54.4555, Longitude - 5.2936

Date classified: 2019-02

Link: <http://archive.jncc.gov.uk/default.aspx?page=7242>

Pisces Reef Complex SAC

Area: 873.0 ha

EU site code: UK0030379

Site centre location: Latitude 54.1478, Longitude -5.2519

Date classified: 2017-09

Link: <https://jncc.gov.uk/our-work/pisces-reef-complex-mpa/>

UK National Site Network site features:

Designated (marine) features likely affected:

Annex 1 reef (Pisces Reef Complex SAC)

Table 1: Pisces Reef Complex SAC feature, condition status and conservation objective¹.

Feature	Current Condition	Conservation Objective
Annex 1 reef	Unfavourable	Recover

¹ [Pisces Reef Complex MPA: Conservation Advice Statements \(JNCC 2020\)](#)

Harbour porpoise *Phocoena phocoena* (North Channel SAC)

Table 2: North Channel SAC feature, condition status and conservation objectives².

Feature	Current Condition	Conservation Objectives
Harbour porpoise	Favourable	Maintain: <ol style="list-style-type: none"> 1. Harbour porpoise is a viable component of the site. 2. There is no significant disturbance of the species. 3. The condition of supporting habitats and processes, and the availability of prey is maintained.

Grey Seal *Halichoerus grypus* (The Maidens SAC)

Table 3: The Maidens SAC feature, condition status and conservation objectives.

Feature	Current Condition	Conservation Objective
Grey Seal	Favourable	Maintain

Common Seal *Phoca vitulina* (Murlough SAC and Strangford Lough SAC).

Table 4: Murlough and Strangford Lough SAC feature condition status and conservation objectives.

SAC	Feature	Current Condition	Conservation Objective
Murlough	Common Seal	Favourable	Maintain
Strangford Lough	Common Seal	Unfavourable	Recover

Seabirds wintering and breeding bird assemblages (SPAs within 100km of the offshore area where commercial fishing is occurring using demersal mobile gear).

² [North Channel MPA: Conservation Objectives and Advice on Operations \(JNCC 2019\)](#)

Table 5: SPA sites, features, feature condition and conservation objectives.

SPA	Feature	Current Condition	Conservation Objective
Belfast Lough	Breeding; Arctic tern, Common tern. Wintering; Bar-tailed Godwit, Black-tailed Godwit, Redshank	Favourable (except Redshank)	Maintain
Belfast Lough Open Water	Wintering; Great Crested Grebe	Unfavourable	Recover
Carlingford Lough	Breeding; Common tern, Sandwich tern Wintering; Light-bellied Brent Goose	Unfavourable (except Light-bellied Brent Goose)	Recover
Carlingford Marine*	Breeding; Common tern, Sandwich tern	Unfavourable	Recover
Copeland Islands	Breeding; Arctic tern, Manx shearwater	Favourable	Maintain
East Coast Marine*	Breeding; Sandwich tern, Common tern, Arctic tern, Manx shearwater Wintering; Great Crested Grebe, Eider duck, Red-throated Diver	Favourable	Maintain
Killough	Wintering; Light-bellied Brent Goose	Unfavourable	Recover
Larne Lough	Breeding; Common tern, Roseate tern, Sandwich tern, Mediterranean Gull. Wintering; Light-bellied Brent Goose.	Favourable	Maintain
Outer Ards	Breeding; Arctic tern	Unfavourable (except for Arctic tern and	Recover

	Wintering; Golden Plover, Light-bellied Brent Goose, Ringed Plover, Turnstone.	Light-bellied Brent Goose)	
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*proposed SPA

Description of the Project or Plan:

Commercial fishing with bottom contacting mobile gear (dredging/ trawling) occurs in the Northern Ireland offshore region (beyond 12 nautical miles), taking place **within two SACs**³ ([Annex C Map - C1](#)).

Size and scale: The total marine area protected within SACs that are potentially affected by commercial fishing is 1612.4km², however this consultation aims to enable MPAs which are designated to protect benthic habitat features to achieve their conservation objectives.

Therefore, management measures are only being considered in this assessment for Pisces Reef SAC and where the North Channel SAC overlaps with South Rigg MCZ ([Annex A Map A1](#)).

The EU Habitat's Directive 1992⁴ is the European directive under which SACs are designated to protect Annex I and II species and habitats. The Conservation of Offshore Marine Habitats and Species Regulations 2017⁵ is the legislation currently underpinning the designation of Pisces Reef Complex SAC, whilst fishing activities in the offshore region is devolved and are regulated under the Fisheries Act 2020⁶ through an amendment to the Marine and Coastal Access Act 2009⁷.

Pisces Reef Complex SAC contributes to a number of national, European and international obligations. Within the UK it contributes to meeting conservation objectives under the Conservation of Offshore Marine Habitats and Species Regulations 2017 and the benthic

³ HRA is for SACs only, MCZ Assessment will consider impacts of mobile demersal fishing in South Rigg MCZ and Queenie Corner MCZ.

⁴ [The Habitats Directive](#)

⁵ [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)

⁶ [Fisheries Act 2020](#)

⁷ [Marine and Coastal Access Act 2009](#)

descriptor under UK Marine Strategy Regulations 2010. Regionally the SAC is part of the UK's contribution to the OSPAR (the Oslo Paris Convention) Marine Protected Area (MPA) network. Globally, the site contributes to the Convention on Biological Diversity (CBD) by helping the UK meet its international commitments to protect the marine environment through area based management.

In 2020, JNCC advised that the Annex I Reef feature of Pisces Reef Complex SAC was achieving its conservation objectives, however the advice did not preclude the need for additional management in the future especially where human activity is considered capable of affecting a feature where the feature is known to be sensitive to associated pressures. Advice issued by JNCC highlights a number of pressures associated with demersal trawling that the reef feature is sensitive to⁸. In the UK, physical damage from bottom trawling has been highlighted as the main pressure to Annex I Offshore Reefs⁹ and it is recommended that this activity should be managed to allow MPAs to achieve their conservation objectives. This involves reducing or removing pressures resulting from the uses and activities that impact the habitat features with the aim to stabilise or increase habitat extent and preserve or restore their biological communities.

This HRA will assess whether fishing with mobile demersal gear is likely to have a significant effect on the site's designated features. Where such activities are deemed not compatible with the SAC conservation objectives, the Department is legally obliged to introduce appropriate management measures to protect the habitat features.

Distance from SACs: Commercial fishing occurs in varying degrees within both sites listed above.

Is the Project or Plan directly connected with or necessary to the management of the site (provide details)?

No – Commercial fishing activities (dredge and trawl within Pisces Reef SAC and South Rigg MCZ) are not connected with or necessary for management of the sites.

⁸ [Pisces Reef Complex MPA: Advice on Operations](#)

⁹ [Offshore Reef - Habitats Directive Article 17 2019](#)

Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to effects on the UK National Site Network site.

Commercial fishing activities with mobile gear (trawling and dredging) can exert a range of biological, chemical and physical pressures on marine habitats and species. Different species and habitats display varying levels of sensitivities to different fishing pressures. These have been developed by the Marine Evidence based Sensitivity Assessment ([MarESA](#)) (Tyler-Walters et al., 2018). The Department has reviewed the sensitivity of all designated features within the SACs to fishing pressures using the MarESA approach. This approach takes the degree of sensitivity of each habitat and species and applies an exposure level based on the current level of fishing pressure. This assigns a level of vulnerability to each species/habitat based on the current fishing pressure. Risk of damage to the features was also assessed by following the DAERA guidance for developing management options for MPAs. The latest condition assessments (2017- North Channel, 2025- Pisces Reef Complex) for each SAC produced by the Department have also provided an indication of the impacts of historical and ongoing activities, including fishing. Where it is not clear that the feature condition is being maintained or improved (as required by “maintain” or “recover” objectives, respectively), it is judged that the activity could be hindering the conservation objective from being achieved. Furthermore, SACs which have had fishing regulations in place for a period of time (e.g. Rathlin Island SAC¹⁰ and Strangford Lough SAC¹¹) have shown signs of recovery of sensitive habitats and communities. This is contributing to the achievement of the Department’s conservation objectives. SAC condition assessments will be publicly available on the Department’s website. All aspects of the following fishing activities and conservation issues have been identified as those likely to give rise to impacts on all SACs:

- Benthic fishing (dredging and trawling).
- Seabird, mammal and elasmobranch disturbance at sea caused by fishing vessels and associated activities.
- Competition for food resources between fisheries and marine predators.

¹⁰ [Rathlin Island Dive Expedition 2019 : A citizen science project](#)

¹¹ [Strangford Lough Condition Assessment 2019](#)

Describe any likely direct or indirect effects to the SAC features, and whether these are significant.

Annex 1 Reef - Pisces Reef SAC

Mobile gear:

Fishing using mobile bottom contact gear targeting grounds very close to or on reef areas, including both bedrock and stony reef, can result in direct impact to this habitat and associated reef fauna through physical disturbance to the seabed.

Fishing activities currently occurring in or around the SAC are primarily otter trawling for *Nephrops norvegicus* though some beam trawling also occurs. The Department carried out an analysis of Vessel Monitoring System (VMS) data from 2014-2023 to identify the level of exposure of the SAC feature to demersal trawling (example map in [Annex C](#)). The analysis determined that the habitat feature was exposed to varied levels of pressures from demersal trawling for each of the reef sites PR1, PR2 and PR3. VMS data indicated low levels of exposure to sites PR1 and PR3 but a medium level of exposure to PR2. Bottom trawling that occurs in the area may pose a threat to the reef and this was the rationale behind the inclusion of a buffer around the reef feature during the drawing of the SAC boundary. This was designed to allow for mobile gear on the seabed being some distance from the location of a vessel at the sea surface. Data showed most observations to be around the edges of the SAC and in between reef features, however fishing vessels are operating within 400m of the reef feature and therefore there is potential for demersal gear to make contact with the feature.

The most biologically diverse communities within the SAC are associated with the shallow, steeply sloped hard substrata, where sessile suspension feeders dominate. These include solitary corals such as *Caryophyllia smithii*, various hydroids, encrusting sponges, and turf-forming faunal assemblages. Due to their sessile nature and structural fragility, these taxa are highly susceptible to mechanical disturbance. Mobile demersal fishing gears pose a cumulative threat to these assemblages as physical contact can result in dislodgement,

structural damage, or direct mortality (Hinz et al., 2009; Kaiser et al., 2006). In contrast, some of the mobile benthic species' characteristic of the reef, such as squat lobsters (*Galathea* spp.), are able to avoid fishing gear by hiding in the crevices of the reef structure for refuge which offers a degree of protection from physical disturbance.

While certain species in the reef assemblage have some tolerance to fluctuations in suspended sediment levels or siltation, these pressures still present a significant ecological risk. Hinchey et al. (2021) documented a negative correlation between increased suspended sediment from demersal fishing activity and the abundance of *Caryophyllia* and cup-shaped sponge species. This relationship persisted even at low levels of fishing activity (as few as five events per year) and when fishing occurred as far as 1 km from the SAC boundary. These findings highlight the indirect impact of resuspended sediment on sensitive taxa; smothering from fine sediment deposition can inhibit feeding, reproduction, and recruitment in suspension feeders, and is therefore a critical consideration for site management. The Department's vulnerability assessment resulted in a high level of risk for the reef feature at Pisces Reef SAC ([Annex D](#)).

It is therefore considered that mobile demersal gear has the potential to adversely impact this feature, and its associated benthic communities at current levels within SACs. The direct effects of gear interaction, combined with indirect impacts from sediment resuspension and smothering, pose significant risks to the ecological integrity of the site, in particular for PR2 which is exposed to a higher level of fishing pressures than PR1 and PR3. In the North Channel SAC, there is an area of rocky reef that overlaps with South Rigg MCZ in the offshore region and while not designated as Annex 1 Reef, this habitat will still face the same vulnerabilities as the same habitat in Pisces Reef SAC and so should be considered.

The effects of mobile fishing gear on reefs within the North Channel and Pisces Reef Complex SACs have been assessed as **significant**.

Table 6: Vulnerability assessment results for the protected feature of for Pisces Reef Complex SAC.

SAC Feature	Vulnerability Assessment
Annex 1 reef	High

Harbour Porpoise

JNCC provide advice on the pressures that are relevant to the North Channel SAC species feature¹², the pressures that have the highest risk for harbour porpoise at the North Channel SAC are summarised below. High risk pressures for the protected species feature are entanglement/bycatch as this could result in death or injury, introduction of contaminants in sea water which deteriorates water and prey quality with potential to bioaccumulate through ingestion of contaminated prey. Medium risk pressures include anthropogenic underwater sound as this may result in mortality, internal injury or disturbance etc, reduction in prey resource which could result from increased competition or displacement from natural range. Finally, collision with vessels may result in mortality or injury was identified as medium to low level of risk.

Mobile gear: Pelagic and static fishing were identified as the main pressure from current fishing practices to achieving the conservation objectives for harbour porpoise as these are used in the water column where harbour porpoise may encounter the fishing gear and become entangled or caught as bycatch. However, according to advice from JNCC there is no evidence this activity is occurring at a significant level in the SAC. Mobile demersal fishing may reduce prey availability for harbour porpoise but the overlap between commercial fisheries and harbour porpoise prey is unknown within the site. Current assessments (2026) indicate the harbour porpoise feature of the North Channel is in favourable condition. It is clear from VMS analysis that most bottom trawling occurs in the offshore region and therefore, suggests little overlap with supporting habitat for harbour porpoise prey e.g. sand. Although there is some risk of collision, this applies not only to fishing vessels but to all types of vessels and certain marine installations; however, it is generally not regarded as a significant risk at this site.

Underwater noise has the potential to disrupt the behaviour of harbour porpoise as they use sound for foraging, navigation, social activities and predator detection. Therefore, noise from shipping to and from Belfast Port has potential to make preferred habitats less attractive however current data suggests no need for management of this activity.

¹² [Harbour Porpoise \(*Phocoena phocoena*\) Special Area of Conservation: North Channel Conservation Objectives and Advice on Operations](#)

Overall, the effects of mobile fishing gear on harbour porpoise within the North Channel SAC, therefore, have been assessed as **not significant**.

Table 7: Vulnerability assessment results for the protected species feature of North Channel SAC.

SAC Feature	Vulnerability Assessment
Harbour Porpoise	Low

Seals

The Article 17 Habitats Regulations Report for 2013-2018 identified the main pressures on Grey seals as:

- management of fishing stocks and game,
- bycatch and incidental killing (due to fishing and hunting activities), and
- interspecific relations (competition, predation, parasitism, pathogens)¹³.

The species population is reported to be increasing overall with management measures in place, therefore in a UK context they are in favourable condition.

For Common seals the main pressures reported were:

- industrial or commercial activities and structures generating noise, light, heat or other forms of pollution,
- marine fish and shellfish harvesting (professional recreational) causing a reduction of species/prey populations and disturbance of species,
- management of fishing stocks and game, and
- interspecific relations (competition, predation, parasitism, pathogens)¹⁴.

¹³ [Fourth Report by the United Kingdom under Article 17 Conservation status assessment for the species: S1364- Grey seal \(*Halichoerus grypus*\)](#)

¹⁴ [Fourth Report by the United Kingdom under Article 17 Conservation status assessment for the species: S1365- Common seal \(*Phoca vitulina*\)](#)

In the UK, harbour seals were reported to be in an unfavourable condition; although the population decline slowed, this improvement was insufficient to change their overall status to favourable.

The pressures listed above are currently exerting a medium level of pressure on seal populations however there are management measures in place, and the conservation status of these Annex II species are either favourable or improving. Therefore, the effects of mobile demersal fishing on these species has been assessed as **not significant** within either Pisces Reef SAC or the portion of North Channel SAC under consideration (that which overlaps with South Rigg MCZ).

Table 8: Vulnerability assessment results for the protected species features of The Maidens, Murlough and Strangford Lough SAC.

SAC Feature	Vulnerability Assessment
Grey Seal	Low
Common Seal	Low

Seabirds

Mobile bottom contact fishing activities may disturb seabirds and breeding birds directly, either by displacing them from feeding or resting areas in the water (caused by movement and noise from vessels engines), or by accidental mortality as a result of capture and drowning in fishing gear or collision with boats, or indirectly by reducing food supplies leading to increased competition among foraging birds. Fishing also represents a net loss to the system in terms of biomass. Dredging and trawling can also cause significant disturbance to benthic habitats which could affect the abundance and availability of the prey.

There are several SPAs designated for either breeding and/or wintering bird assemblages within a 100km radius of the area where the commercial fishing activities take place (table 5). Many of the protected bird species are wintering in inshore coastal areas and do not forage in or near the offshore MPAs that are considered in this HRA e.g. Light-bellied Brent Goose, Golden Plover, Great Crested Grebe. Therefore, these species are not considered likely to

be impacted by commercial fishing activities in the offshore zone. However, protected bird species that inhabit or frequent the offshore zone for feeding include seabirds such as the Manx shearwater which is a protected feature of the Copeland Islands SPA. This species spends most of its life offshore and therefore would have greater potential to be impacted by pressures associated with commercial fishing in the offshore MPAs. Despite this, the Manx shearwater feature is considered to be in favourable condition at this SPA. The Arctic tern, Sandwich tern, Roseate tern and Common tern are all known to forage in the offshore zone to various degrees. These bird features are designated at their respective SPAs for breeding and are all in favourable condition except for at Carlingford Lough SPA where populations of both Common Tern and Sandwich Tern are in unfavourable condition status. The population and distribution trends in tern species at this site are erratic and caused by mass movements of individuals between colonies which confounds reliable conclusions on population changes. The main pressures identified for these breeding sea birds involve erosion and instability of the breeding site at Green Island, as well as predation from mammals and other birds. Consequently, despite the unfavourable condition status of these seabirds it is not thought that the current levels of commercial fishing in the offshore MPAs are significantly impacting the protected seabird features, therefore all SPA features have been screened out during stage 1 of this HRA.

In conclusion, current levels of trawling, dredging activities are unlikely to cause disturbance to the seabirds of the listed SPAs unless these activities were to increase in intensity in the future. The effects of mobile and fishing gear on seabirds within SPAs have therefore been assessed as not significant.

Table 9: Vulnerability assessment results for the protected species features of all SPAs within 100km of the commercial fishing activity (see table 5 for more information).

SPA Feature	Vulnerability Assessment
Wintering Bird Assemblages	Low
Breeding Bird Assemblages	Low

Describe any potential effects on the UK National Site Network site as a whole in terms of interference with the key relationships that define the structure or function of the site.

Dredging is seen as the most environmentally damaging form of fishing and therefore is considered to have the potential to have a significant adverse effect on the key relationships that define the function of SACs. Both dredge and trawl fishing can seriously impact marine habitats and communities (particularly habitats such as reef) through direct contact with the dredge/trawl gear, and sedimentation when dredging/trawling occurs close by. Loss of key species through targeted catch or by-catch has also the potential to cause deterioration of important species, communities and habitats.

Provide details of any other projects or plans that together with the project or plan being assessed could (directly or indirectly) affect the site.

n/a

Is the potential scale or magnitude of any effect likely to be significant?

Yes

Fishing activities detailed above are likely to have a significant adverse effect on the designated features of Pisces Reef SAC based on the results of the vulnerability and risk of damage assessment described above (Results table in [Annex D](#)).

Alone?

Yes

In combination with other projects or plans?

Yes

Sensitive benthic habitats within Northern Ireland's offshore MPAs are exposed to a suite of compounding pressures. Pressures from demersal mobile fishing act in-combination with those from climate change, submarine cable development, anchorage and shipping. Additionally, development of offshore energy infrastructure also threatens the ecological integrity and resilience of these habitats. Pressures and activities mentioned above are considered below using the guidance from JNCC¹⁵ and MarESA¹⁶.

Climate change interacts with demersal mobile fishing in ways that amplify ecological stress. Some species, such as *Virgularia mirabilis*, may tolerate rising temperatures, warmer waters reduce oxygen levels, straining a wide range of marine life. Ocean acidification impairs shell formation in calcifying species and regeneration in brittlestars, while altered sediment chemistry disrupts bioturbation and nutrient cycling. Bottom trawling exacerbates these effects by resuspending carbon-rich sediments, increasing remineralisation and carbon dioxide emissions. Climate change may accelerate microbial activity intensifying carbon loss and undermining the carbon sequestration potential of MPAs.

Submarine cable development introduces physical pressures similar to those caused by demersal fishing. Installation methods such as ploughing and trenching disturb the seabed, resuspending sediments, and can lead to smothering of benthic communities or altered sediment composition. Concrete, steel or rock armour protects cables during their operation but changes the physical seabed where the structure is placed. Impacts are not limited to installation; maintenance activities throughout the cable lifespan may result in repeated disturbance. The cumulative effect of these activities poses a significant risk to sensitive habitat features. There are currently two telecommunications cables that cross through South Rigg MCZ/North Channel SAC (LANIS 2 and BT-Manx-NI)¹⁷ and an electricity network cable (Western Link 2) which will be built between Scotland and England and has the potential to pass through the MPAs.

Anchorage also exerts pressures comparable to demersal mobile fishing. Anchors and chains scour the seabed, damaging fragile species, abrading and penetrating the substratum.

¹⁵ [Marine Pressures-Activities Database \(PAD\) v1.5 2022](#)

¹⁶ [Marine Evidence based Sensitivity Assessment \(MarESA\)](#)

¹⁷ [NI Marine Map Viewer](#)

This interaction resuspends sediments, increasing turbidity and deposition rates, potentially smothering benthic organisms. In less dynamic mud environments, physical recovery is slow, and if sediment type is sufficiently altered, the habitat may no longer support its original assemblage. Although anchorage is not currently documented within the MPAs, its occurrence would also compound existing pressures.

Shipping (vessels movements and discharges) contributes additional stress through the introduction of contaminants and pollutants which degrade habitat quality, these can include but are not limited to such as hydrocarbons, polycyclic aromatic hydrocarbons (PAHs), antifoulants, and litter. Shipping also facilitates the spread of invasive non-native species via ballast water and biofouling, threatening native biodiversity. Many of these pressures overlap with those from demersal fishing, increasing the cumulative burden on benthic habitats.

Offshore energy development presents further risks, particularly during construction and decommissioning phases. Activities such as dredging to prepare the seabed and placement of foundations alter the sediment structure and seabed, increase turbidity and deposition rates. During the operational phase the structures can modify local hydrodynamics which may affect sediment transport and habitat extent. Although there are no developments exerting pressure on the SACs at present, both Pisces Reef SAC and North Channel SAC (and South Rigg MCZ) lie within key resource areas for offshore wind. Any future applications will require thorough evaluation of impacts and potential mitigation measures e.g. Environmental Impact Assessment and HRAs will be required to prove conservation objectives are not compromised.

In summary, the in-combination effects of demersal mobile fishing, climate change, and other anthropogenic activities pose a significant threat to the structure and function of benthic habitats in Northern Ireland's offshore MPAs. These pressures are additive and often synergistic, reducing biodiversity, ecological resilience, and the ability of these habitats to recover from disturbance. Strategic management and robust environmental assessments are essential to safeguard these vulnerable ecosystems.

List of Agencies Consulted: Provide contact name and telephone or email address.

- DAERA Marine Planning Advice Team
- DAERA Marine Conservation Advice Team
- DAERA Marine Conservation and Reporting Branch
- DAERA Sea Fisheries Inspectorate
- Agri-Food and Biosciences Institute (AFBI)
- Co-Fish: Fisheries & Conservation Partnership
- Joint Nature Conservation Committee (JNCC)
- Scottish Government

Summary of response to consultation received.

Fishing activities detailed above have been assessed as having a significant adverse effect on the Annex 1 Reef feature of Pisces Reef Complex SAC, based on the result of the vulnerability and risk of damage assessment described above. Therefore, a full assessment and mitigation measures are required in order to ensure the conservation objectives are achieved.

Conclusion: Is the proposal likely to have a significant effect on an UK National Site Network site?

Yes

IF ANY PART OF THE PROPOSAL IS LIKELY TO HAVE A SIGNIFICANT EFFECT AN APPROPRIATE ASSESSMENT WILL BE REQUIRED – STAGE 2 APPROPRIATE ASSESSMENT.

Data collected to carry out the assessment

Who carried out the assessment?

DAERA Marine and Fisheries Division. Marine Conservation Branch, Fisheries and Marine Protected Area Management team.

Sources of data

- [South Rigg MPA: Background Information](#)
- [South Rigg MPA: Conservation Objectives](#)
- [South Rigg MPA: Supplementary Advice on the Conservation Objectives \(SACO\)](#)
- [South Rigg MPA: Conservation Advice Statements](#)
- [South Rigg MPA: Advice on Operations](#)
- [Pisces Reef Complex MPA: Background Document](#)
- [Pisces Reef Complex MPA: Conservation Objectives](#)
- [Pisces Reef Complex MPA: Supplementary Advice on the Conservation Objectives \(SACO\)](#)
- [Pisces Reef Complex MPA: Conservation Advice Statements](#)
- [Pisces Reef Complex MPA: Advice on Operations](#)
- [JNCC MPA Mapper](#)
- [JNCC Marine Pressures-Activities Database \(PAD\) v1.5 2022](#)
- **Vessel Monitoring System (VMS) fishing activity data for the NI offshore region between 2014-2023.**
- [OSPAR Extent of Physical Disturbance to Benthic Habitats - Data Snapshot](#)
- **Biotope Data from Marine Recorder (provided by CEDaR)**
- **Species, habitat and sediment data from JNCC 2024 Cruise Survey (South Rigg MCZ)**
- **AFBI *Nephrops* Burrow Counts 2011-2024**
- [JNCC UK Atlas of Seabed Habitats \(UKASH\)](#)
- [JNCC's Scientific advice on offshore Marine Conservation Zones proposed for designation in 2019. \(JNCC 2018\)](#)

- [Alternative Marine Conservation Zones in Irish Sea mud habitat: Assessment of habitat extent and condition at “Queenie Corner” and assessment of fishing activity at potential MCZs. \(AFBI 2016\)](#)
- [JNCC Offshore Special Area of Conservation Pisces Reef Complex SAC Selection Assessment Document \(JNCC 2012\)](#)
- [JNCC/Cefas Report No. 40 Pisces Reef Complex MPA Monitoring Report 2016 \(JNCC, Cefas 2022\)](#)
- [JNCC/Cefas Report No. 18 CEND23/16X Cruise Report: Monitoring Survey of Pisces Reef Complex SAC/SCI \(JNCC, Cefas 2017\)](#)
- [JNCC Report No. 410 North West Irish Sea Mounds: Hard and soft substrata habitats \(Mellor et al 2008\)](#)
- [JNCC Report No. 608 Marine Conservation Zone Benthic Community Analysis \(Sotheran et al 2017\)](#)
- [Guidance on the Development of Conservation Objectives and Potential Management Options. \(DAERA 2015\)](#)
- [The impact of scour processes on a smothered reef system in the Irish Sea \(Callaway et al 2009\)](#)
- [Detecting the impacts on UK sublittoral rock communities of resuspended sediments from fishing activity \(Hinchen et al 2021\)](#)
- [Trawl disturbance on benthic communities: chronic effects and experimental predictions \(Hinz et al 2009\)](#)
- [Global analysis and recovery of benthic biota to fishing \(Kaiser et al 2006\)](#)
- [Response of benthic fauna to experimental bottom fishing: A global meta-analysis \(Sciberras et al 2018\)](#)
- [MARLIN](#)
- [JNCC Report No: 512B Assessing the sensitivity of subtidal sedimentary habitats to pressures associated with marine activities Phase 2 Report – Literature review and sensitivity assessments for ecological groups for circalittoral and offshore Level 5 biotopes \(Tillin and Tyler-Walters 2014\)](#)
- **DAERA risk assessment matrix of fishing activities and protected features (MarESA Assessment tables)**
- **Peer-reviewed literature**
- **Seafish Irish Sea Economic Assessment report 2025**

Level of assessment completed

Stage 2

Where can the full results of the assessment be accessed and viewed?

Contact DAERA Marine Conservation and Reporting Branch via:

Marine.InfoRequests@daera-ni.gov.uk

MarineConservation@daera-ni.gov.uk

Response to consultation

Stage 1 Assessment has determined that fishing activities (mobile bottom contacting gear) is likely to have a significant adverse effect on the designated features of the described sites (Annex 1 reef feature of Pisces Reef Complex SAC), therefore a Stage 2 Appropriate Assessment is required.

Stage 2: Appropriate Assessment

Fig 1 Assessment of Effects of the Project or Plan on the Integrity of the Site

Describe the elements of the project or plan (alone or in combination with other projects or plans) that are likely to give rise to significant effects on the site (from screening assessment).

Detailed above in stage 1

Set out the Conservation objectives of the site

Pisces Reef Complex SAC

- <https://data.jncc.gov.uk/data/4f8ac443-777f-4a55-a5c8-fc44e80fa965/PiscesReef-2-ConservationObjectives-V1.0.pdf>

Describe how the project or plan will affect key species, key habitats and the integrity of the site (determined by structure and function and conservation objectives). Acknowledge uncertainties and any gaps in information.

Detailed above in stage 1.

Describe what mitigation measures are to be introduced to avoid or reduce the adverse effects on the integrity of the site. Acknowledge uncertainties and any gaps in information.

The introduction of fisheries management measures would help further the conservation objectives by limiting and/or reducing the abovementioned commercial fishing pressure on those designated features assessed as having moderate/high vulnerability. This would help to decrease the risk of damage to key habitats and species within the SAC.

The removal or reduction of these pressures on fragile and/or important habitats and species through site specific fisheries regulations would contribute to maintaining or recovering the

integrity of the sites, facilitate natural habitat recovery and therefore improve biodiversity and increase habitat complexity.

Proposed approaches to management

A summary of options considered is provided in [Annex E](#), those being brought forward are mentioned below:

- Prohibition of demersal mobile gear use throughout the entire SAC.
- Prohibition of demersal mobile gear use in zones containing qualifying features only.

Managed fishing will include:

- Mandatory vessel position monitoring for all vessels operating in the SACs.
- Mandatory recording is already a licenced requirement with mandatory reporting of incidental injury or mortality of marine mammals to the MMO.; and
- The Department will continue to encourage and support the development and trialling of fishing gear that reduces unintended catch.
- Monitoring to assess effectiveness of management measures and to inform adaptive management.

The management options will be site specific depending on the vulnerabilities identified from the vulnerability and risk of damage assessments. Overall, introducing management measures for commercial fisheries in offshore SACs would support stable environmental conditions and diverse communities within the site.

Monitoring and compliance may involve ecosystem survey, surveillance of fishing vessel activity through VMS data analysis and, inspection of electronic reporting and logbooks. There is potential for novel methods of monitoring to be introduced e.g. geo-fencing of prohibition areas. Methods such as remote sensing of satellite imagery and AIS data may also be used to monitor vessel activity in near real time (e.g. Global Fishing Watch). Breaches of regulations can lead to fines, license suspension or revocation, or criminal prosecution where appropriate.

The Department aims to foster stewardship of the marine environment through stakeholder engagement, in particular through the collaborative efforts of the Co-Fish group which will support co-design and management of the MPAs and monitoring management strategies while ensuring socio-economic security.

Fig 2 Appropriate Assessment: Mitigation Measures

List measures to be introduced

Prohibition of mobile bottom contact fishing gear throughout the entire Pisces Reef Complex SAC, and portion of the North Channel SAC that overlaps with South Rigg MCZ is the preferred management option.

Table 10 SAC features, feature condition and conservation objectives.

Feature	Current Condition	Conservation Objective	Management Recommendation
Annex 1 Reef	Unfavourable	Recover	Prohibit demersal mobile gear within SAC extent.
Harbour porpoise	Favourable	Maintain	Mandatory recording is already a licenced requirement with mandatory reporting of incidental injury of mortality of marine mammals to the MMO.

Explain how the measures will avoid the adverse effects on the integrity of the site.

Prohibiting mobile bottom contact fishing gear in the areas listed above will remove all physical, chemical and biological pressures that were assessed (through MarESA, vulnerability and risk of damage assessments) as causing the high/moderate vulnerability of

designated features as a result of fishing activity. Case studies in Strangford Lough¹⁸ and Rathlin¹⁹ Island SACs have shown that removing these pressures can allow key vulnerable habitats and species to recover and overall biodiversity and ecosystem services to improve. Adopting these measures follows an ecosystem-based approach that will deliver wider ecosystem benefits.

By protecting the fish species and their habitats within the SAC boundaries, stocks outside the boundaries can be enhanced by emigration of animals and export of their offspring²⁰.

The adverse effects identified in the test of likely significance will be removed as a result of the prohibition.

Provide evidence of how they will be implemented and by whom.

Following a twelve-week public consultation of the proposed management measures launching on 1st May 2026 and subsequent analysis and publishing of a synopsis report, Regulations will be implemented by the Department through the Marine and Coastal Access Act 2009 and are intended to take effect in 2027.

The Department will consider all responses alongside the economic impact and rural needs assessments prior to final decision on which management options will be adopted.

List of mitigation measures (as above)

Prohibition of mobile bottom contact fishing gear throughout the entire Pisces Reef Complex SAC, and a portion of the North Channel SAC that overlaps with South Rigg MCZ.

Provide evidence of the degree of confidence in their likely success

The Department has confidence in the success of this mitigation measure based on case studies within Northern Ireland inshore waters from Strangford Lough and Rathlin Island SACs. In Strangford Lough SAC, demersal fishing was prohibited under The Inshore Fishing

¹⁸ [Condition Assessment Report 2019 Strangford Lough Subtidal Special Area of Conservation](#)

¹⁹ [Rathlin Island Dive Expedition 2019 : A citizen science project](#)

²⁰ [The role of marine reserves in achieving sustainable fisheries \(Roberts et al 2005\)](#)

(Prohibition of Fishing and Fishing Methods) (Amendment) Regulations (Northern Ireland) 2003. Demersal fishing at Rathlin was also prohibited under the Rathlin Island (Prohibited Methods of Fishing) Regulations (Northern Ireland) 2016. Both SACs have shown signs of recovery from previous habitat damage caused by mobile bottom contact gear.

Strangford Lough SAC Condition Assessment 2014-2018: biogenic reef classified as “unfavourable recovering”, which is an improvement from the previous condition assessment where it was classified as “unfavourable declining”. This improvement in condition was based upon signs of recovery from Horse Mussel (*Modiolus modiolus*) beds and associated species. The main change to the area during this period was the removal of bottom towed fishing gear.

Rathlin Island CEDaR survey 2019: both reef and sandbank habitats were classified as “unfavourable recovering”, which is an improvement from their previous condition assessment where it was classified as “unfavourable declining”. This improvement was based on signs of recovery from species associated with the habitat. The main change to the area during this period was the removal of bottom towed fishing gear.

This management approach has been based on scientific evidence from the MarESA assessments. The MarESA approach assesses the likelihood of damage to a feature (species or habitat) due to a human activity pressure and uses the most up to date peer reviewed scientific literature and compilation of evidence on the effect of a given pressure. Removing the pressures identified by these assessments from mobile bottom contact fishing gear has shown to protect and enhance the integrity of the designated features and sub-features and help to contribute to achieving the conservation objectives. Based on this the Department is confident in the success of the prohibition of mobile bottom contact fishing gear on vulnerable qualifying features.

Demersal mobile fishing is not the only source of pressure on the MPA features, climate change also introduces pressures that may exacerbate the ecological impacts of mobile demersal fishing, particularly in sensitive benthic habitats such as Annex 1 reefs or sea pen and burrowing megafauna communities. For example, climate change may result in warmer oceans, deoxygenation of seawater, ocean acidification, altered sediment chemistry and nutrient cycles etc. These pressures interact in complex ways, potentially reducing the resilience of marine ecosystems and impairing their capacity to recover from disturbance. By protecting the seabed of the MPAs this enables the sediments to continue sequestering

carbon without physical disturbance from fishing gear interaction and therefore contributes towards a more climate resilient environment and refuge for the biodiverse communities of the MPAs.

Stage 3: Assessment of Alternative Solutions

The objectives of the Plan or Project.

Predicted adverse effects of the project or plan (commercial mobile demersal fishing) on SACs following the Appropriate Assessment include long term damage to designated features and conservation objectives of the sites not being met. Therefore, there are no alternative solutions assessed other than the options proposed in public consultation.

Details on fishing fleet and effort targeting listed sites and intensity of fishing activity occurring on designated features are provided in the Sea Fish report [here](#).

Stage 4: Assessment where no alternative solutions exist and where adverse impacts remain

Stage not applicable.

Annex A – Location Map of MPAs Assessed in the HRA

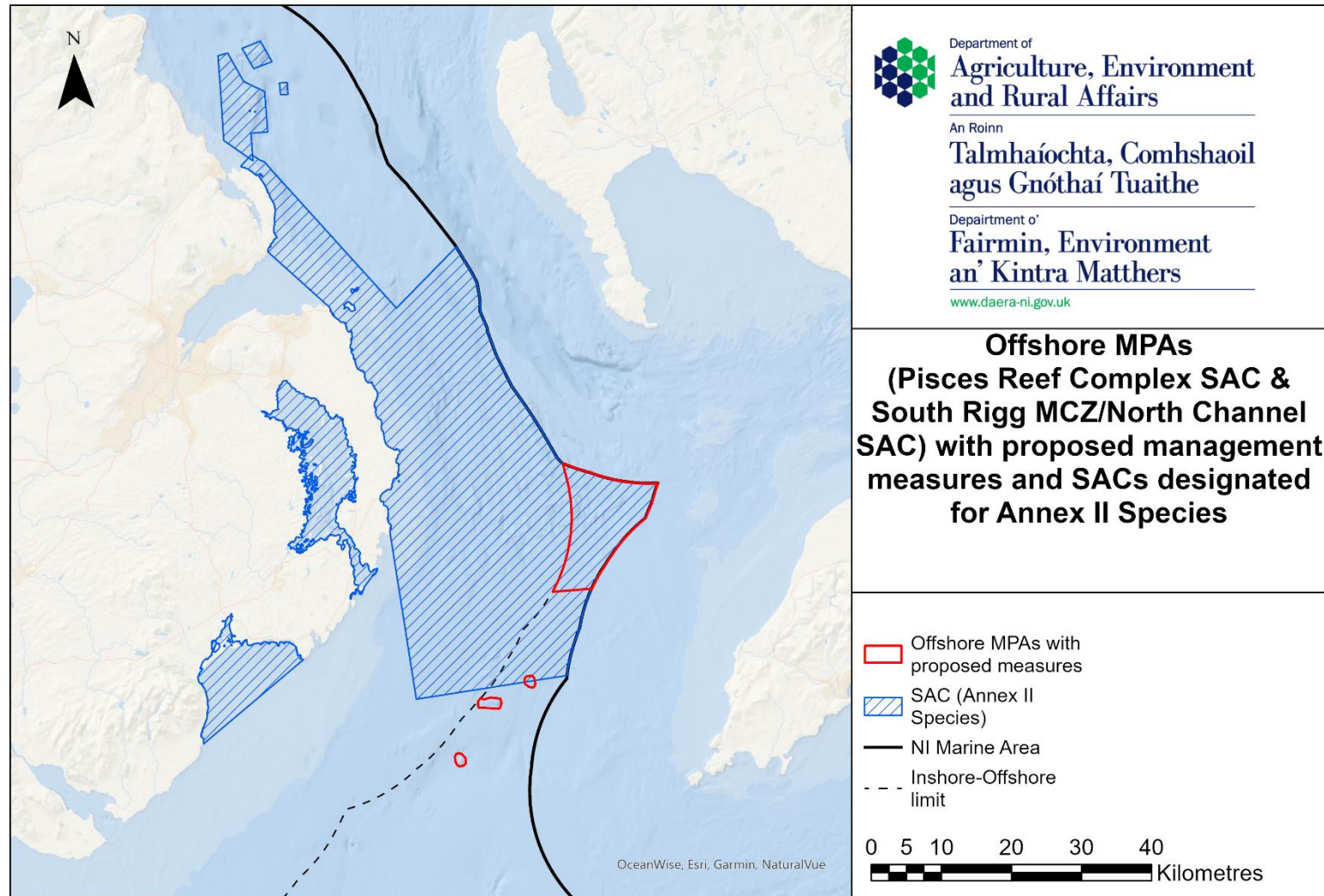


Figure A1: Location Map showing MPAs under consideration in the HRA in red; Pisces Reef Complex SAC and where the North Channel SAC overlaps with South Rigg MCZ, and those areas in relation to other SACs designated for Annex II species (Harbour porpoise, Grey seal and Common seal) in blue hatch.

Annex B – Habitat Maps of MPAs

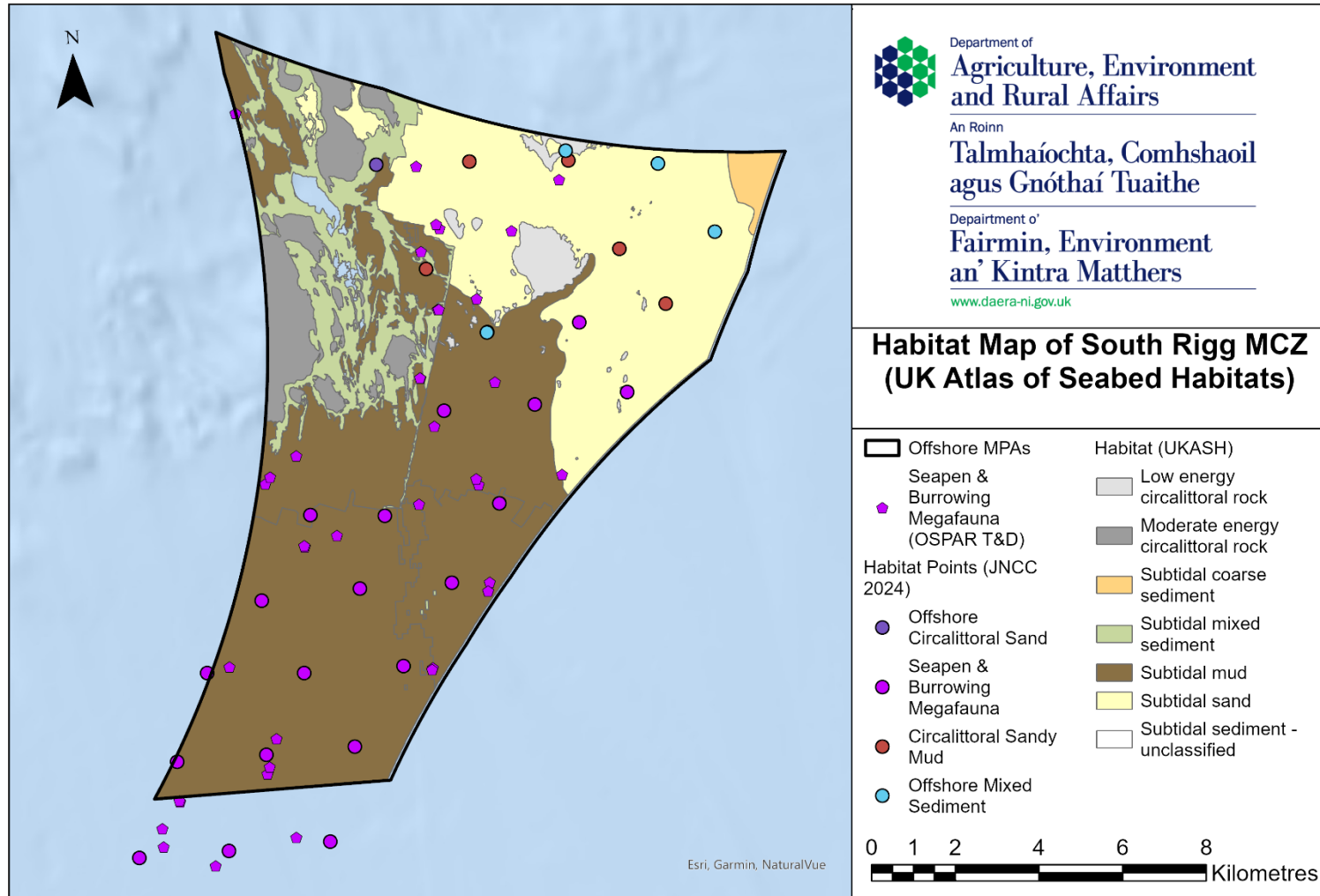


Figure B1: South Rigg MCZ feature/habitat map (UK Atlas of Seabed Habitats). South Rigg MCZ lies within the North Channel SAC which is designated for Harbour porpoise - see location map in Annex A1 for spatial context.

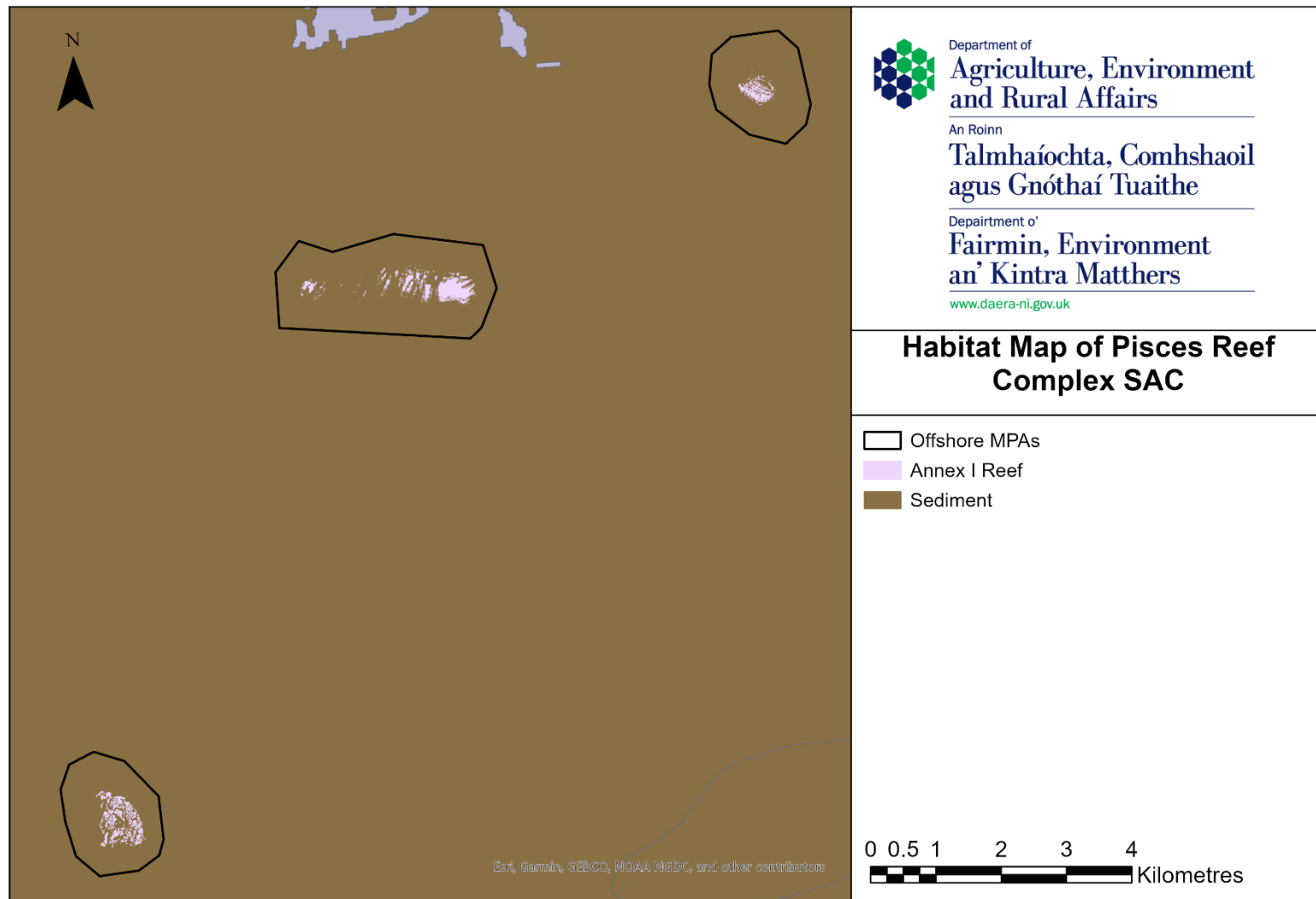


Figure B2: Pisces Reef Complex SAC feature/habitat map (EU Sea Map 2021).

Annex C – Map of Fishing Effort at Offshore MPAs

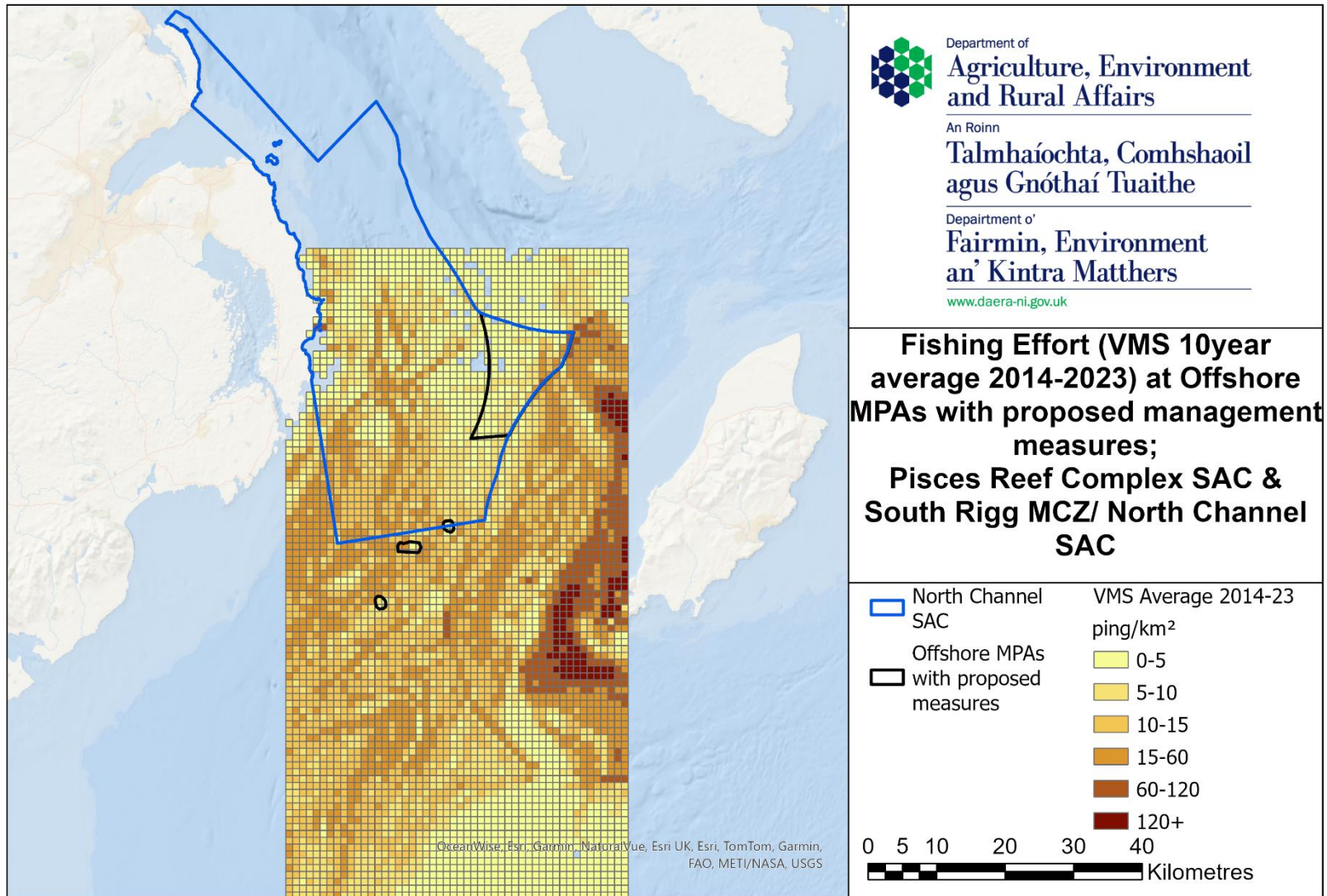


Figure C1: Map of average fishing effort between 2014-2023 (VMS data) at MPAs with proposed management measures; Pisces Reef Complex SAC and North Channel SAC where it overlaps with South Rigg MCZ (eastern corner).

Annex D – Assessment of the Level of Risk from Demersal Mobile Gear in MPAs

Table D1: Level of risk associated with demersal mobile gear and action advised for each feature within Pisces Reef Complex SAC (based on MarESA).

MPA	Feature	Biological Pressures	Chemical Pressures	Physical Pressures	Action advised
		Level of risk	Level of risk	Level of risk	
Pisces Reef Complex SAC	Reefs	High	High	High	Remove pressure from demersal mobile gear.

Annex E – List of Management Options Considered and Justification for Choice

Management Option	Decision to include in consultation	Justification
Gear modifications e.g. elevation of gear to reduce seabed contact, use of rolling or semi pelagic trawls, lighter gear components e.g. chains, doors and sweeps to reduce scour and sediment plumes.	No	There is insufficient evidence that enforcing the use of modified gear would achieve the desired outcome at Pisces Reef Complex SAC. Complete removal of pressure from demersal gear was concluded as necessary due to sensitivity of the reef feature to both contact with gear and sediment smothering.
Temporal fishing prohibition	No	There is insufficient evidence of an unimpacted baseline state and recovery rates of the of the reef feature to support this management approach. The feature assemblage includes fragile slow growing species therefore temporal/seasonal bans on fishing activity would likely not allow sufficient recovery time between fishing events and hinder the SAC from achieving conservation objectives. <i>Nephrops</i> fishing typically occurs in a seasonal pattern, therefore implementing a seasonal ban may not have the desired effect.
Zonal fishing prohibition	No	Guidance from JNCC advised that a buffer was required to prevent fishing gear from making contact with the reef feature. Additionally characteristic species may be impacted by sediments resuspended by

		<p>fishing activity up to 1km away. Therefore, a zonal approach where fishing activity is prohibited only within the extent of the Annex 1 Reef but continued within the surrounding mud plains within the MPA boundary is not suitable for Pisces Reef Complex SAC. Additionally, the extent of the reef feature is not mapped with complete certainty which adds further challenge to delineating zones.</p> <p>A zonal option is considered for part of the North Channel SAC which overlaps with South Rigg MCZ, however this is to mitigate impacts on MCZ benthic habitat features not the SAC feature-Harbour porpoise.</p>
<p>Prohibition of demersal mobile gear throughout the SAC</p>	<p>Yes</p>	<p>Prohibition of demersal mobile fishing throughout the Pisces Reef SAC would remove the risk of pressures associated with physical disturbance acting on the reef features and reduce the pressures associated with suspended sediments and siltation. Therefore, this approach will allow the site to achieve the conservation objectives.</p>
<p>Limiting the amount of time that gear can be deployed or reducing the speed and tow duration during fishing</p>	<p>No</p>	<p>Current fishing practises have evolved for efficient use of the gear type, by limiting the time gear can be deployed or reducing speed and tow duration it increases the level of risk compared to reward and cost to benefit ratio for the fishing fleet steaming to the offshore sites. This reduces overall</p>

		efficiency of the fishing trip and increases risk compared to reward.
Restrict the number of vessels allowed to use bottom contact gear	No	This could result in unfair impact on some fishers compared to others, additionally how the Department would determine which fishermen would be allowed to fish or not is not clear.
ECO-Certification scheme which promotes sustainable practices for low impact gear utilisation	No	The Department recognises the benefit of work such as The Project UK Nephrops FIP and The Nephrops Fishery Improvement Project in improving the sustainability of <i>Nephrops</i> fishing practises. These long-term solutions, which are still in development, aim to increase sustainability of the stock. Although they may benefit some habitat types or reduce bycatch, certification is insufficient to achieve conservation objectives associated with the Annex 1 Reef feature.
Mandatory recording of protected species that are accidentally caught and any entanglement issues	Yes	Quantification of bycatch and entanglement of protected species such as harbour porpoise gives a more complete assessment of how these species are impacted by fishing activity and forms the basis for improving fishing gears to reduce the frequency of its occurrence. This is already a licenced requirement with mandatory reporting of incidental injury of mortality of marine mammals to the MMO.
Mandatory vessel position monitoring for all vessels operating in the SAC	Yes	Vessels >12m in length are already required to have VMS on their boats which pings every two hours. This provides indication of fishing activity however, small

		SACs such as Pisces Reef Complex SAC would benefit from geo-fencing which would result in a higher ping rate, supporting more robust monitoring of vessel compliance in prohibition areas.
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