

The Sandeel (Prohibition Of Fishing) (Scotland) Order 2024

Final Business and Regulatory Impact Assessment

January 2024

1. Title of Proposal

The Sandeel (Prohibition Of Fishing) (Scotland) Order 2024

2. Purpose and Intended Effect

2.1. Background

The seas around Scotland have a wide variety of marine wildlife and varied habitats and support a diverse abundance of marine organisms. Sandeel form a particularly important component of the North Sea ecosystem and foodweb as a key link between plankton and top predators such as predatory fish, seabirds, and marine mammals. As an island-based society, the sea around Scotland has always had an important role to play, offering a source of food and recreation.

The Scottish Government has national and international commitments to protect marine biodiversity, and to take necessary measures to protect and conserve the marine ecosystem.

These commitments include the UK Marine Strategy to collaborate with the other UK administrations to assess, monitor and publish a programme of measures the UK will use to support progress towards achieving Good Environmental Status. This includes descriptors for biodiversity and commercial fish. The Scottish Government's key regional platform for collaboration with neighbouring countries on marine biodiversity is OSPAR (the Convention for the Protection of the Marine Environment in the North-East Atlantic), where we participate as part of the UK representation and take action developed under this forum to protect and conserve the marine ecosystems and biodiversity.

Under the Joint Fisheries Statement, a statement published in accordance with section 2 of the Fisheries Act 2020, the Scottish Government is committed to delivering sustainable management of fisheries that takes account of the protection of biodiversity and healthy functioning marine ecosystems¹. This includes considering how best to manage fishing for sandeel in Scottish waters², with the aim of benefiting both sandeel stocks and the wider ecosystem. The *Precautionary Objective* set out in section 1 of the Fisheries Act 2020 also establishes the need to apply the precautionary approach to fisheries management.

Given the importance of sandeel to the wider ecosystem and the subsequent benefit provided by the species in aiding long-term sustainability and resilience of the marine environment, it remains an over-arching and long-held Scottish Government position not to support fishing for sandeel in Scottish waters, which is reflected in Scotland's Future Fisheries Management Strategy. This position was emphasised in June 2021 when the Cabinet Secretary for Rural Affairs and Islands committed in Parliament to

¹ [Joint Fisheries Statement \(JFS\) - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statements/joint-fisheries-statement)

² Scottish Waters includes internal waters, territorial sea, and the UK's exclusive economic zone (EEZ) limit adjacent to Scotland.

considering what management measures could be put in place to better manage the North Sea sandeel fisheries in Scottish waters.

In 2021, Scottish Government officials worked closely with UK counterparts on a call for evidence³ to gather information to better inform our considerations on future management for sandeel. The Scottish Government is therefore committed to considering what additional measures could be introduced to better manage fishing for sandeel in Scottish waters, with the aim to benefit both North Sea sandeel stocks and the wider ecosystem, including sensitive marine species.

In July 2023, the Scottish Government launched the consultation on potential closure of the sandeel fishery in Scottish waters. The consultation, which sought views on five options including a Do Nothing option, was undertaken with the purpose of generating wider environmental and ecosystem benefits. These include potential benefits to sandeel, seabirds, marine mammals, and other fish species.

The Sandeel (Prohibition Of Fishing) (Scotland) Order 2024 is being made to close fishing for sandeel in Scottish waters which was the outcome of the consultation in summer 2023.

2.1.1 Sandeel management

Sandeel is a jointly managed stock between the UK and the EU (European Union). Under the UK/EU trade and cooperation agreement (TCA), the UK has a 3.11% share and the EU a 96.89% share of the parties' combined sandeel quota in 2024. The Total Allowable Catch (TAC) is set during the in-year consultations, following the release of ICES advice.

Under the TCA and during a transition period lasting until 30 June 2026, the UK and the EU have full mutual access to their respective exclusive economic zones (EEZs) (i.e. waters adjacent from 12 – 200 nautical miles); as well as access to specific English, Welsh and Channel Island waters in the 6-12 nautical mile area. Sandeel is an important fishery to some EU member states, in particular Denmark, who regularly fish the stock in UK waters in May and June.

2.1.2 EU sandeel fishery

Denmark is the largest shareholder, holding 96% of the EU quota.. 35% of this quota has been allocated to areas almost entirely within UK, primarily Scottish, waters (sandeel areas 4 and 3r); the remaining 65% has been allocated to areas either straddling UK and EU waters, or in EU waters exclusively (sandeel areas 1r and 2r, and 6).

In data provided by the Marine Management Organisation, in the period 2015-2019, there was on average 257,000 tonnes of sandeel caught in UK waters annually by EU vessels, with a value of approximately £44.7 million in 2022 values.

³ [Call for Evidence on future management of Sandeels and Norway pout - Defra - Citizen Space](#)

In data provided by the Danish Government on Danish sandeel catches in Scottish waters in area 4 during the period 2018-2022, there were on average 12,000 tonnes caught annually, valued at almost £3.1 million in 2022 prices.

EU vessels have historically landed some sandeel into Scottish ports, however no sandeel have been landed into Scotland since 2020⁴. Between 2017 and 2020, there was on average around 3,000 tonnes of sandeel landed into Scottish ports by non-UK vessels each year, at an average value of £0.6 million in 2022 prices.

2.1.3 UK sandeel fishery

In the case of UK vessels, the stock has historically been targeted primarily by one UK vessel. No quota has been issued to UK vessels for sandeel since 2021, and a major sandeel fishing area in the North Sea has been closed to UK and EU vessels since 2000, except for a limited monitoring fishery in some years.

2.1.4 Current area closure for sandeel

There is a sandeel closure in place in sandeel management area 4 (Figure 1). This area extends along most of the east coast of Scotland, as well as some of the northeast coast of England, and is exclusively within UK waters.

The existing closure was included in EU regulations and remains in assimilated law, formerly known as retained EU law⁵. The closure was intended to benefit predators dependent on sandeel by avoiding a localised sandeel depletion.⁶

The closed area has been in place since 2000, following requests from the UK to the EU to establish a moratorium on fishing and advice from ICES, which stressed the importance of sandeel for several potential sensitive seabird colonies in the area⁷.

The current closure area, which is in assimilated law, allows for “fisheries for scientific investigation”, this allowance has previously been used by Danish vessels. In recent years, Danish vessels have requested and received this authorisation, and have therefore fished in the area for scientific investigation only.

⁴ [UK fleet landings by rectangle stock port and EEZ 2018-2022, UK sea fisheries annual statistics report 2022 - GOV.UK \(www.gov.uk\)](#)

⁵ [Regulation \(EU\) 2019/1241 of the European Parliament and of the Council, Part C: Closed or Restricted Areas.](#)

⁶ Commission of European Communities, Evaluation of Closed Area Schemes, [SGMOS-07-03 report v3 with STECF opinion.doc \(europa.eu\)](#)

⁷ [Case Study: Sandeels in Scottish waters | Scotland's Marine Assessment 2020](#)

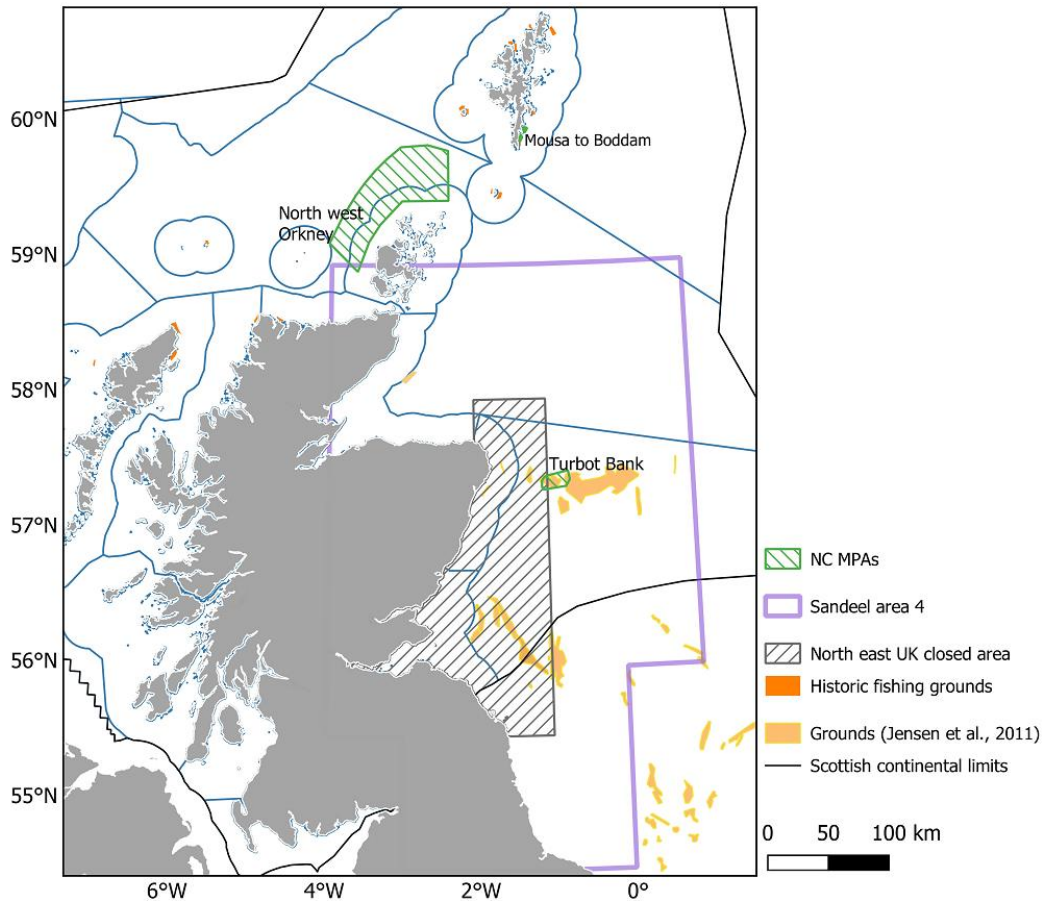


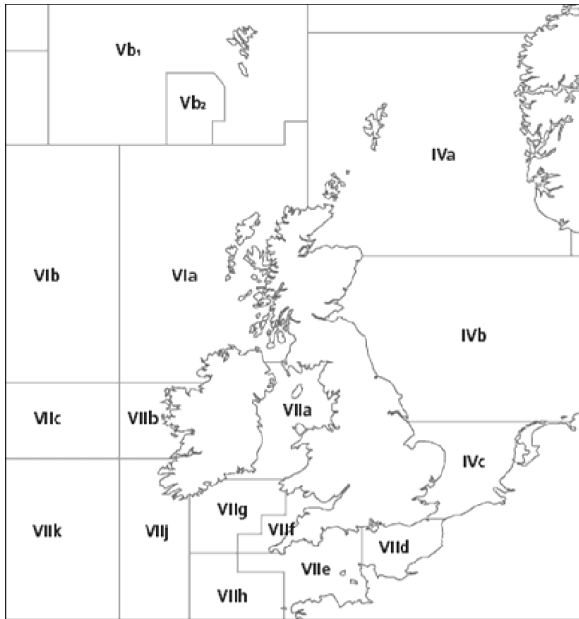
Figure 1: The existing northeast UK area closed to sandeel fisheries and the various spatial management measures for sandeel within Scottish waters. (Reproduced from a Case Study: Sandeels in Scottish Waters)

2.1.5 Proposed Sandeel policy in Scotland

The Scottish Government committed to considering what measures could be introduced to better manage fishing for sandeel in Scottish waters, with an aim to benefit both North Sea sandeel stocks, and the wider ecosystem.

The Scottish Government consulted in 2023 on proposals to close fishing for sandeel in all Scottish waters. Following this consultation, the Scottish Government proposes to close fishing for sandeel in all Scottish waters from 2024 onwards through the implementation of a Scottish Statutory Instrument (SSI) applicable to all vessels that would otherwise fish within UK waters. The sandeel areas that would be directly impacted by the closure in Scottish waters are situated within the ICES areas of IVa, IVb and VIa, as shown below in Figure 2.

Figure 2: Map of ICES rectangles around UK EEZ



This proposal is informed by the potential benefits to the wider marine ecosystem that such a measure could bring. These include benefits to sandeel, seabirds, marine mammals, and other fish species. It is hoped that the proposals will contribute towards achieving Good Environmental Status for seabirds and marine mammals.

This decision has also been informed by the current state of understanding of the role of sandeel in the marine ecosystem and the potential impacts of closing fishing for sandeel in Scottish waters.

This BRIA presents the expected costs and benefits associated with the above proposal relative to the current policy.

2.2. Objective

The Scottish Government wishes to meet as far as possible the following aims:

- a) To seek effective protection of sandeel, as a contribution to the wider marine ecosystem.
- b) To provide the opportunity for wider ecosystem benefits to a range of species in addition to sandeel, including commercial fish species, seabirds and marine mammals, that will also improve resilience to changes in the marine environment.
- c) To complement, as far as possible, existing sandeel management measures in Scottish waters, including those under development in Scotland's MPA network.

This proposal seeks to contribute to the following [Marine Directorate Blue Economy Outcomes](#):

Environment: Scotland's marine ecosystems are healthy and functioning, with nature protected and activities managed using an ecosystem-based approach to ensure negative impacts on marine ecosystems are minimised and, where possible, reversed.

This proposal seeks to contribute to the following National Outcomes:

Environment: We value, enjoy, protect and enhance our environment.

Economy: We have a globally competitive, entrepreneurial, inclusive and sustainable economy.

2.3. Rationale for Government intervention

A government can choose to intervene in a market when results of market operations are not fully captured by market values. One outcome not captured is termed 'negative externalities': The production of a good results in a harmful effect to a third party which are not captured in the market price. The Scottish Government believes there are negative externalities in the current sandeel fisheries. This would manifest itself through lower ecosystem services and natural capital without the cost being captured by the fishing industry resulting in higher fishing levels than the social optimum may suggest. As such the Scottish Government believes there is a rationale to intervene to account for the present negative externality and adjust fishing effort closer to the social optimum.

Prior to this the Scottish Government has not allocated quota for sandeel in order to reduce the fishing of sandeel in Scottish waters. However, due to the international nature of this stock there remains fishing in Scottish waters. Therefore, the preferred option which we expect will bring ecosystem benefits will be brought about by a SSI to restrict sandeel fishing altogether.

3. Consultation

3.1. Within Government

The proposal to introduce the regulation on sandeel fishing in Scottish waters has been developed with input from NatureScot and portfolio areas within the Marine Directorate.

NatureScot, Scottish Environment Protection Agency and Historic Environment Scotland were also consulted through the Strategic Environmental Assessment (SEA) process.

3.2. Public Consultation

A 12 week public consultation on proposals to close fishing for sandeel in Scottish waters ran from 21 July 2023 to 13 October 2023.

A total of 493 written representations were received from individuals and organisations including the fishing sector, renewable energy developers and

recreational interests, as well as 9,815 campaign submissions. Overwhelming support (97%) was expressed in the consultation responses for the preferred option to close fishing for sandeel in all Scottish waters. Issues raised by respondents covered a range of topics, including benefits for biodiversity, wellbeing and tourism, the scientific evidence base, the UK-EU TCA, and the impact on offshore wind development. An outcome report answering the general points raised across the representations has been produced.

A total of 82 respondents gave a response to question 5 concerning the BRIA, 50 of these responses were from individuals and 32 from organisations. The below sections are taken from the consultation analysis.

3.2.1 The benefits of the option outweigh the possible costs

Many respondents felt that the benefits of the preferred option outweigh the possible costs, with a general sentiment that financial considerations must be weighed against a 'possible environmental catastrophe' caused by not protecting sandeel and the wider marine ecosystem:

“We cannot continue to take without severe impacts. The views of the BRIA should be secondary to the evidence produced that show the ecological benefits of putting the ban in place” – [Individual].

Again, respondents observed that species such as kittiwakes, terns and puffins would benefit from the proposals presented in the consultation documents, as would those linked to commercial fisheries, like cod, whiting and haddock.

Several respondents noted that any impacts of the preferred option on Scottish businesses would be minimal, and mainly related to the Scottish fish processing sector. Others felt there would be no direct impact on the Scottish fishing industry or local fishing communities as no Scottish (or UK) vessels currently fish for sandeel due to the fact that the UK Government has not made any sandeel quota available for apportioning to UK vessels since 2021.

Indeed, many respondents saw the costs of the preferred option as more impactful on businesses outwith Scotland and the UK. They noted that most of the sandeel fishing effort is by vessels from outside of the UK (e.g. Denmark), where sandeel are often processed and used as animal feed. For many, this aspect led to heightened agreement with the full closure of sandeel fishing to all EU and Non-EU vessels:

“Given that the UK has a 2.97% share and the EU a 97.03% share of the parties' combined sandeel quota, and the UK doesn't issue their quota to vessels to catch, then there is no benefit to Scotland or the UK to the fishery remaining open” – [Organisation].

3.2.2 Impact on offshore wind

Some organisational respondents pointed out that the BRIA did not consider the indirect socio-economic benefits of offshore wind deployment that could be facilitated by the allocation of sandeel closures as a compensation measure for the reduction in

space for seabirds foraging or due to increased mortality in seabirds. Such benefits were seen as contributing to key Scottish Government objectives, like those linked to a Just Transition, and the wider Scottish economy. The views of offshore wind developers to the consultation in relation to using the closure as compensation for offshore wind and the potentially significant socio-economic benefits arising from ScotWind developments are noted. However, this consultation examines the possible negative and positive impacts (environmental and economic) arising from the closure of fishing for sandeel rather than the question of treating such a closure as compensation for the impacts of offshore wind. The closure may be relevant in terms of section 291(3) of the Energy Act if scientific evidence supports this position in the future. However, the Scottish Government will assess the suitability and potential benefits of the closure of fishing for sandeel as a compensatory measure if, and when, it may be required in support of a case for derogating from the Habitats Regulations to facilitate the consenting and deployment of offshore wind projects.

3.2.3 Potential disruption and difficulties

As above, many respondents said they supported the preferred option on the basis that the impact on Scottish businesses would be minimal. However, some were concerned that the BRIA does not consider the long-term implications of depleted sandeel stocks under the do nothing option, which could have prolonged negative impacts on Scottish businesses, disrupt supply chains and cause regulatory impacts.

Others felt that opportunities for UK vessels hoping to increase their share of TACs (Total Allowable Catches) for certain stocks during upcoming negotiations with the EU would be lost by the proposals to close fishing for sandeel in Scottish waters. There were also concerns from the EU with regards to the preferred option and its potential implication on positions of Member States at fisheries negotiations.

3.2.4 Other Commentary

One respondent suggested that it might be better to apply a 'capital' assessment framework to inform decision-making when considering an ecosystem management measure like the closure of fishing for sandeel in Scottish waters, rather than simply a monetary assessment. Non-monetisable benefits are captured by this BRIA in addition to monetisable benefits, and are discussed in Section 5.

4. Options

The partial BRIA and consultation documents published in 2023 each explored alternative options which are not analysed here:

- Extension of the existing closure to all of sandeel management area 4 only
- Seasonal closure of the sandeel fishery
- Voluntary closure of the sandeel fishery

Only the preferred option is examined in this final BRIA document due to the alternative options having been considered but ruled out following public consultation. Details of our assessment of all reasonable alternatives can be found in

Appendix A of the Environmental Report on the Strategic Environmental Assessment⁸.

4.1. Do Nothing

The preferred option will be reviewed against the Do Nothing option. Under this option, sandeel would continue to be a jointly managed stock between the UK and the EU. EU access to Scottish waters would continue, as agreed through the UK/EU TCA. The Scottish Government would continue to support sandeel quota not being allocated to Scottish vessels, as has been the practice across the UK since 2021.

There is not expected to be any additional benefits of continuing with the current status quo of not allocating sandeel quota to UK vessels. For Scottish businesses, both catching and onshore, the current practices would remain unchanged. There would be no environmental benefits.

In terms of costs, continuing the status quo of not allocating quota to Scottish vessels would result in no change in regards EU vessels fishing for sandeel in Scottish waters. Therefore, this option is associated with potential detrimental impacts on the sandeel stock and consequently on predatory fish, seabirds and marine mammals.

Also, if the UK Government decides to close the sandeel fishery in English waters in the North Sea, there could be potential displacement into Scottish waters to the further detriment of the Scottish sandeel stock.

4.2. Preferred and Proposed Option

This BRIA examines the Scottish Government's preferred option which is to close fishing for sandeel in all Scottish waters for the primary purposes of generating marine ecosystem benefits. This option would limit vessels of all nationalities from fishing for sandeel in Scottish waters. This option would be delivered through the introduction of a Scottish Statutory Instrument and is expected to have a higher impact than the alternative options, both in terms of costs and benefits. The alternative options having been considered but ruled out following public consultation.

4.3. Reasoning

Following consideration of all representations received, the Scottish Government is of the view that the preferred option to close fishing for sandeel in all Scottish waters, is the most likely approach to achieve our aims, as the potential ecosystem benefits are expected to outweigh the negative impacts identified. In reaching this decision, the Scottish Government has applied the precautionary principle and ensured alignment with national and international commitments, including, but not limited to, the UK-EU TCA, Scotland's National Marine Plan, Scotland's Fisheries Management Strategy, the UK Joint Fisheries Statement, the Fisheries Act 2020, and the Marine Strategy Regulations 2010.

4.4. Sectors and Groups Affected

⁸ [Sandeel fishing consultation: strategic environmental assessment - draft environmental report - gov.scot \(www.gov.scot\)](https://www.gov.scot/publications/consultations/2021/01/sandeel_fishing_consultation_strategic_environmental_assessment_draft_environmental_report_gov.scot/pages/10_to_12.aspx)

The following sectors have been identified as being affected:

- **UK catching sector:** The UK catching sector has a ~3% share of the total UK and EU sandeel quota, however the UK Government has not made sandeel quota available for apportionment to UK vessels since 2021. Therefore, at present, the UK catching sector will not be additionally affected by the proposed closure. However, the wider environmental effects of the proposed closure may positively impact the UK catching sector if the closure leads to an increased abundance of other commercially fished species which prey on sandeel.
- **EU catching sector:** this sector has a ~97% share of the total UK and EU sandeel quota. The majority of sandeel fished in Scottish waters is caught by Danish and other EU vessels. Therefore, these vessels may be impacted by a closure; however, EU vessels may choose to move their fishing of sandeel to other waters and therefore offset the loss of a Scottish waters closure.
- **Processing sector:** this sector could potentially purchase sandeel from non-UK vessels landing sandeel into Scottish ports. However, of the sandeel caught by non-UK vessels in Scottish waters in 2018-19, 6.3% was landed into Scottish ports: none has been landed into Scottish ports since 2020.
- **Consumers:** There could be a Scottish consumer market purchasing locally caught sandeel, however, none have been identified. For more detail on consumer impacts, please see section 10.

5. Benefits

5.1. Monetisable benefits

No benefits have been monetised in this assessment. The majority of benefits are non-monetisable ecological benefits as outlined below. While these are non-monetisable, these benefits should still be considered alongside the monetisable costs outlined below. In addition, while many expected benefits do not have financial value attached to them, there is the possibility that the expected benefits of closure on the sandeel stock and to other fish stocks has monetary benefits realised in the longer term which cannot be currently estimated due to the lack of available comparable data.

5.2. Non-monetisable benefits

The closure of fishing for sandeel in all Scottish waters is associated with a number of potential non-monetisable benefits to the sandeel stock and the wider marine ecosystem. These benefits are relative to the 'do nothing' option, i.e. continuing with the current sandeel policy.

The sandeel fishery competes with marine species that prey on sandeel which has subsequent impacts on the wider food web. Closing sandeel fishing in totality will result in benefits both for the sandeel stock and for marine predators. Sandeel are a crucial part of the marine food web and therefore by increasing the stock of sandeel there are subsequent benefits for the wider environment. The decision is aligned with the aims set out in Scotland's Fisheries Management Strategy 2020-2030:

'Where appropriate, restricting fishing activity and prohibiting fishing for species which are integral components of the marine food web, such as sandeels.' (FFM, page 10)

'We will work with our stakeholders to deliver an ecosystem-based approach to management, including considering additional protections for spawning and juvenile congregation areas and restricting fishing activity or prohibiting fishing for species which are integral components of the marine food web, such as sandeels.' (FFM, page 27)

Therefore, the Scottish Government is of the view that a full closure has expected benefits that justifies Government intervention in the management of this species.

In summary, the benefits of the preferred option are described below.

- **Sandeel:** Restricting fishing for sandeel in Scottish waters may benefit the health of the stock, which may lead to an increase in abundance.
- **Seabirds, whitefish species and marine mammals:** Sandeel is a key prey species for some seabird species (e.g., as kittiwakes, guillemots, puffins, and gannets), whitefish species (cod, whiting, haddock) and marine mammals (grey and harbour seals, harbour porpoises)⁹ which are present in the area that would be included in this closure. Restricting fishing for sandeel also has the potential to reduce bycatches of whiting and mackerel.
- **Marine Protected Areas:** The extension to all Scottish waters would mean that the closure would cover all MPAs in Scottish waters, including those in which seabirds, marine mammals and sandeel are a protected feature thus complementing measures under development within Scotland's MPA network.
- **Good Environmental Status:** As of October 2019, the UK has not achieved Good Environmental Status (GES) for breeding seabirds and for harbour seals in the North Sea. Better management of sandeel fisheries in Scottish waters is expected to contribute to achieving GES for these receptors.¹⁰

Through the consultation process additional benefits for Scottish communities were identified through potential increased revenue from an increase in wildlife tourism that could be generated from increased populations of marine mammals and seabirds as a result of increased food supply. Increased revenue through angling was also raised as a potential benefit, due to the role sandeel play as a food source for post-smolt wild Atlantic salmon. This fulfils one of the action points in the Wild salmon strategy: implementation plan 2023 to 2028¹¹ to restrict fishing activity or prohibit fishing for species which are integral components of the marine food web, such as sandeel.

⁹ ICES Journal of Marine Science, Volume 63, Issue 8, 2006, Pages 1530–1550, [Variation in the abundance of sandeels *Ammodytes marinus* off southeast Scotland: an evaluation of area-closure fisheries management and stock abundance assessment methods | ICES Journal of Marine Science | Oxford Academic \(oup.com\)](#)

¹⁰ DEFRA Marine Strategy Part One: UK updated assessment and Good Environmental Status, October 2019, [Marine Strategy Part One: UK updated assessment and Good Environmental Status \(publishing.service.gov.uk\)](#)

¹¹ Wild salmon strategy: implementation plan 2023 to 2028, [Actions - Wild salmon strategy: implementation plan 2023 to 2028 - gov.scot \(www.gov.scot\)](#)

6. Costs

6.1. Monetisable costs

The monetised costs of the preferred option, closing fishing for sandeel in Scottish waters, are considered relative to the 'do nothing' option, i.e. continuing with the current sandeel policy. The main costs expected to result from closing fishing for sandeel in all Scottish waters are the costs to businesses, both catching and processing. For consistency and comparability, the below cost analysis uses the same data and a similar approach as the De Minimis Assessment published by Defra¹².

The monetisable costs are set out below for the following groups:

- Direct costs to the Scottish catching sector
- Direct cost to Non-Scottish vessels catching sandeel in Scottish waters
- Indirect cost to processing plants in Scotland

Table 1: Estimated cost to business of Option 1 (preferred option), 2022 prices

	Annual cost to business of preferred option (£million)	Net Present Cost (10 year appraisal period) (£million)
1) Direct impact to Scottish catching sector	0	0
2) Direct cost to non-Scottish catching sector	3.1	27.1
3) Indirect cost to Scottish onshore businesses	0.6	4.8

Source for 2): Marine Management Organisation data split for English and Scottish waters

Source for 3): [UK sea fisheries annual statistics report 2021](#)

The below section outlines the expected costs to the three main groups of businesses outlined above. Costs are evaluated against Option 0: Do nothing.

6.1.1. Expected cost to the Scottish catching sector

The first group to consider is the Scottish catching sector. Sandeel quota has not been allocated to Scottish vessels since 2021, therefore there is not expected to be an additional cost to the Scottish sandeel catching sector for the preferred option compared to the 'do nothing' scenario.

¹² DEFRA, Consultation on Spatial Management Measures for Industrial Sandeel Fishing, [Sandeels DMA final.pdf \(defra.gov.uk\)](#)

However, it should be noted that prior to 2021 there were landings of sandeel into Scotland by UK vessels in 2018-2020, see Table 2 below. Therefore, there is the possibility that these landings would recommence if quota was again allocated.

Table 2: Sandeel landings into Scotland by UK vessels, 2017 to 2022

	2017	2018	2019	2020	2021	2022
Tonnage ('000s)	-	0.6	1.1	2.9	-	-
Value (£ million)	-	0.1	0.3	0.8	-	-

Source: Section 2 - Landings: Table 2.2c, [UK sea fisheries annual statistics report 2021](#) and [UK sea fisheries annual statistics report 2022](#).

6.1.2. Expected cost to non-Scottish vessels catching sandeel in Scottish waters

The second group which will be impacted by closing fishing for sandeel in all Scottish waters is the catching sector that is not Scottish flagged. This group comprises EU vessels who fish for sandeel in Scottish waters and land in any port (UK or elsewhere). It is anticipated that these EU vessels will face the largest cost of a closure as they catch the vast majority of the sandeel which is caught in Scottish waters. The vessels are primarily Danish, or other EU vessels.

From 2015-2019, non-Scottish vessels catching sandeel from Scottish waters caught on average 17,900 tonnes of sandeel each year, worth on average £4.0 million in 2022 prices¹³. The net present cost of the preferred option is therefore estimated at £34.2 million, assuming the closure starts in 2024, with a 10-year appraisal period discounted at 3.5%.

However, using the data provided by the Danish Government for sandeel catches in Scottish waters provides an estimate for 2018-2022. Using this data shows that Danish vessels caught on average 12,000 tonnes of sandeel from Scottish waters each year, worth on average £3.1 million in 2022 prices. The net present cost is therefore estimated at £27.1 million, assuming the closure starts in 2024, with a 10-year appraisal period discounted at 3.5%.

We would therefore assess the estimated impact to EU vessels of a closure of Scottish waters to sandeel fishing as between £3.1 million and £4.0 million annually. This range accounts for annual fluctuations present in the catch data.

However, it should be noted that the above estimation is based on revenue and not profit, and therefore will be an overestimation of business impact. There is also no assessment of the potential for these EU vessels to move their fishing of sandeel to other waters and therefore offset the loss of a Scottish waters closure.

¹³ Based on 2015-2019 landings data produced by the Marine Management Organisation (MMO).

The data used for this estimation was produced by the MMO using an assumption of vessel catches split by English and Scottish waters, based on ICES rectangles.¹⁴

6.1.3. Expected cost to the onshore sector in Scotland

Data published by the MMO shows that from 2017-2020 there was an average of 4,100 tonnes of sandeel landed each year into UK ports as shown in Table 3 below; it is understood that these ports are all located in Scotland. There have been no landings of sandeel by EU or Scottish vessels into the UK since 2020 (except from a monitoring fishery). The onshore sector is expected to be impacted by the loss of sandeel, a key input into fish meal, although it is acknowledged that there has been no landings since 2020 so this impact is likely to be minimal.

Table 3: Tonnage and value of sandeel landed into UK ports, by UK vessels and foreign vessels, 2015-2022

	UK vessels		Foreign vessels	
	Tonnage (000's tonnes)	Value (£000's)	Tonnage (000's tonnes)	Value (£000's)
2015	0	0	0	0
2016	0	0	0	0
2017	0	0	4.7	0.8
2018	0.6	0.1	3.6	0.8
2019	1.1	0.3	0.7	0.2
2020	2.9	0.8	2.7	0.7
2021	0	0	0	0
2022	0	0	0	0

Source: Section 2: Landings. Table 2.2 and Table 2.3, [UK sea fisheries annual statistics report 2019](#) and [UK sea fisheries annual statistics report 2022](#).

From 2017-2020, foreign vessels landed on average 2,900 tonnes of sandeel into UK ports per year, at an average annual value of £0.6 million, see Table 3 above. As above, these are understood to be Scottish ports. There were no landings of sandeel into these ports in 2015-2016 or in 2021-2022.

From the data held by the Marine Directorate it is unclear how much of the sandeel landed into Scotland is purchased by Scottish businesses. Assuming that 100% is bought by Scottish businesses, the net present value of the closure to the onshore sector is estimated at £4.8 million in 2022 prices, assuming the closure starts in 2024, with a 10-year appraisal period discounted at 3.5%. However, this is likely to be an over-estimation as there have been no sandeel landings into Scottish ports since 2020. As such, it is suggested that a range of between £0 - £4.8 million is taken into account for the uncertainty in landings.

6.1.4. Expected cost to Marine Directorate compliance operations

¹⁴ Apportioning activity area is based on the published '[ICES Statistical Rectangle Factors](#)' methodology.

There is expected to be minimal additional compliance costs to the Marine Directorate, as monitoring of a sandeel closure will be absorbed by regular compliance operations.

6.1.5. Other expected costs to fishers and other stakeholders

The cost to the fishing sector of familiarisation to the new regulation is expected to be negligible and so has not been calculated.

7. Regulatory and EU Alignment Impacts

7.1. Trade

7.1.1 Intra-UK Trade

This measure is not likely to impact on intra-UK trade as quota has not been allocated to UK vessels since 2021.

7.1.2 International Trade

This measure is not likely to affect international trade. Sandeel landings from catches outside of Scottish waters will still be allowable under the preferred option, however we expect this to be minimal or negligible. There could be an increase in sandeel imports into Scotland from other countries. As data for sandeel processing or use in Scotland is not available, it is not possible to estimate these potential changes.

7.2. EU Alignment

The Regulations are aligned with the EU's overall approach of managing fish stocks in a sustainable manner with catches of stocks at risk of over-exploitation subject to a variety of restrictions.

Current management measures in place within sandeel management area 4 were included in EU regulations and remain in assimilated law. A prohibition of fishing for sandeel in Scottish waters to protect sensitive marine species aligns with the delivery of Good Environmental Status for biodiversity and commercial fish under the UK Marine Strategy. This is an obligation that stems from the EU's Marine Strategy Framework Directive¹⁵. It also aligns with EU principles in the Common Fisheries Policy by taking a precautionary approach to supporting the protection of marine ecosystems.

8. Scottish Firms Impact Test

¹⁵ [EU Marine Strategy Framework Directive - European Commission \(europa.eu\)](https://european-council.europa.eu/media/en/press-communications/infographic/infographic_marine_strategy_framework_directive_en.pdf)

As stated above, businesses with an interest in the proposal were invited to submit their views on the potential financial impact of the proposals via the public consultation. No face-to-face discussions were carried out in developing this impact assessment. The consultation carried out was deemed sufficient for the purposes of considering all options.

Scottish firms are expected to be minimally impacted and as outlined in the options section, the estimated costs are assumed to be an overestimation.

There are two groups of Scottish firms that are of primary interest under the Scottish firms Impact Test.

The first group is those who previously fished for sandeel discussed in section 6.1.1. The impact of the preferred option to this group is assessed to be zero when compared to the Do Nothing option due to the fact that sandeel quota has not been distributed to UK vessels in recent years.

As discussed in section 6.1.3, up until 2022 there were landings of sandeel into Scottish ports. From the data held by the Marine Directorate and from the information garnered through the consultation, it is not clear how many businesses were purchasing the sandeel landed into Scotland. However, it is estimated that a prohibition of fishing for sandeel in Scottish waters could reduce the potential for sandeel being landed into Scotland. The potential cost to Scottish processors is therefore estimated at between £0 - £4.8 million, assuming a 10 year appraisal period.

9. Competition Assessment

The measures will prohibit fishing for sandeel for all Scottish businesses in all areas of Scotland and therefore there is not expected to be any impacts on competition. There is the possibility that suppliers of sandeel in Scotland, who purchased sandeel from non-Scottish fishers landing into Scotland, will be put at a disadvantage compared to other businesses that purchased sandeel from alternative sources already. However, noting that there has been no such landings since 2020 and there is not enough evidence to assess whether this would be a significant impact. It is expected that the number of businesses that could be affected by a decreased in sandeel landings will be a small number.

10. Consumer Assessment

Currently, of the total tonnage of sandeel caught in UK waters, the vast majority of it is landed abroad. Consultees identified concerns about the impact of the preferred option on aquaculture producer businesses as sandeel is used in the production of fishmeal for farmed Atlantic salmon. The impact on three primary consumers have been reviewed for the preferred option against the do nothing option:

- Fishmeal and fish oil processors
- Aquaculture businesses

- Consumers of farmed salmon

10.1. Fishmeal and fish oil processors

Scottish fishmeal and fish oil processors primarily utilise fish trimmings from local fish processors^{16,17}. While there have been small landings of sandeel into Scotland as noted in table 3, this is assumed to supplement the main industry and not be a core input. This assumption is supported by the declared daily processing capacity of both processors being around 1,000 tonnes per day and the largest landing of sandeel only being 5,600 tonnes in a year. Given the average tonnage landed into Scotland was 4,100 between 2017-2020, it is unlikely that the prohibition of sandeel fishing in Scottish waters will have a notable impact on the ability of these businesses to source products for their factories. As such, there is not expected to be any notable impact on these consumers.

10.2. Aquaculture businesses

The primary users of fish meal and fish oil is the aquaculture industry¹⁸ which is a large and important sector of the Scottish economy. The preferred option stated by Defra¹⁹ in their De Minimis Assessment is a closure of English waters to sandeel fishing. Therefore, if Scottish waters were also to close there would be less area for sandeel fishing to be displaced into. Notably, the quota for sandeel area 4²⁰ which is entirely within Scottish and English waters could not be displaced. Therefore, the below figures use the total tonnage from area 4 despite this including English waters as well as Scottish.

Between 2011 and 2021 the average tonnage of sandeel caught in area 4 was 14,982 tonnes²¹. This represents 7% of the 201,636 tonnes of sandeel landed by the EU between 2011 and 2021, and 2% of the 782,364 tonnes of fish destined for non-food uses such as fishmeal and fish oil²². As such, it could be considered that the closure of the Scottish waters would lead to a 2% decrease in EU fishmeal production (the primary market for Scottish water fished sandeel). However, fishmeal is a globally traded and priced product with EU production representing 10-15% of global production²³. Thus, closure of sandeel fishing in area 4 should have a very small impact on the global price of fishmeal. Between this and the availability of close substitutes in the market such as plant oil and plant feed, it is unlikely that the

¹⁶ [Pelagia Bressay | Pelagia](#)

¹⁷ [Pelagia Aberdeen | Pelagia](#)

¹⁸ European Commission, Directorate-General for Maritime Affairs and Fisheries, Fishmeal and fish oil – Production and trade flows in the EU, Publications Office of the European Union, 2023, [Fishmeal and fish oil - Publications Office of the EU \(europa.eu\)](#)

¹⁹ [Sandeels DMA final.pdf \(defra.gov.uk\)](#)

²⁰ [Sandeel \(Ammodytes spp.\) in divisions 4.a–b, Sandeel Area 4 \(northern and central North Sea\) \(figshare.com\)](#)

²¹ [Sandeel \(Ammodytes spp.\) in divisions 4.a–b, Sandeel Area 4 \(northern and central North Sea\) \(figshare.com\)](#)

²² European Commission, Directorate-General for Maritime Affairs and Fisheries, Fishmeal and fish oil – Production and trade flows in the EU, Publications Office of the European Union, 2023, [Fishmeal and fish oil - Publications Office of the EU \(europa.eu\)](#)

²³ European Commission, Directorate-General for Maritime Affairs and Fisheries, Fishmeal and fish oil – Production and trade flows in the EU, Publications Office of the European Union, 2023, [Fishmeal and fish oil - Publications Office of the EU \(europa.eu\)](#)

closing of Scottish waters on their own will have a notable impact on these consumers to source feed for aquaculture.

10.3. Consumers of farmed salmon

Given the likely negligible impact on aquaculture businesses it is not anticipated that there would be any follow through costs to the consumer of farmed salmon. As with fishmeal, farmed salmon is a globally traded and priced product and so there are not expected to be any notable impacts on these consumers.

11. Digital Impact Test

The proposed extension will not be applicable in a digital/online context. The Sandeel (Prohibition Of Fishing) (Scotland) Order 2024 will be published online.

12. Legal Aid Impact Test

There is unlikely to be an impact on the legal aid fund. The prohibition of fishing for sandeel in Scottish waters does not create a new procedure or right of appeal to a court or tribunal. The closure could be challenged by way of a judicial review in the Court of Session. Legal aid is available for judicial review applications if the legal aid means test and certain other requirements are met.

13. Enforcement, Sanctions and Monitoring

The Scottish Government will monitor the compliance of the new SSI via the regular enforcement operations of the Marine Directorate according to the powers in the Sea Fish (Conservation) Act 1967. It will be an offence under section 5(1) of the Sea Fish (Conservation) Act 1967 to use a fishing boat in contravention of a prohibition imposed by the SSI. The penalties are fixed by section 11 of that Act. On summary conviction, the penalty is a fine not exceeding £50,000. On conviction on indictment, the penalty is an unlimited fine. In either case, the court may also order forfeiture of any fish in respect of which the offence was committed and of any net or other fishing gear used in committing the offence. On summary conviction, if the court does not order the forfeiture of fish, it may impose an additional fine not exceeding the value of the fish.

14. Implementation and Delivery Plan

The new measure will come into force on 26 March 2024.

15. Post-implementation Review

Officials will keep the policy under review and may amend it if necessary. In addition, a post-implementation review will be undertaken **5 years** after the introduction of this proposal to review the impacts of this policy change and to enable a review of the projected impacts.

16. Summary and Recommendation

In recognition of the role that sandeel play in the marine environment and after weighing up the above business and environmental costs and benefits, the Scottish Government’s position is to prohibit fishing for sandeel.. This BRIA therefore recommends that The Sandeel (Prohibition Of Fishing) (Scotland) Order 2024 be created to bring about the preferred option of closing all Scottish waters to sandeel fishing. This recommendation is made on the basis of the expected costs and benefits set out in this report. Primarily, the recommendation to proceed with the preferred option is based on the expected benefits to the sandeel stock and the wider marine ecosystem. The monetary costs associated with the closure are deemed to not outweigh the potential non-monetary gains expected.

Other options were considered via the partial BRIA and consultation. These would be expected to bring costs and benefits similar to the preferred option, but of smaller magnitude.

Table 4: Summary costs and benefits table of the Sea Fishing (Prohibition On Fishing For Sandeel) Order 2024

Total benefit per annum: economic, environmental, social	Total cost per annum: economic, environmental, social, policy and administrative
Potential for improvement to sandeel stocks with ensuing potential stock size benefits to seabirds, whitefish species and marine mammals.	Direct cost to EU fishing industry of fishing restriction (primarily Danish or other EU vessels), estimated at between £3.1 million and £4.0 million annually
Removes potential for displacement of activity to other Scottish waters compared to extending the existing closure to all of area IV.	Indirect cost to processing sector with lower/no landings of sandeel, estimated at £0 - £0.6 million annually.
Potential benefits to rural economy through increased wildlife tourism and angling opportunities.	Direct cost to Scottish Government Compliance of an additional regulation to monitor (minimal).

17. Declaration and Publication

I have read the Business and Regulatory Impact Assessment and I am satisfied that (a) it represents a fair and reasonable view of the expected costs, benefits and impact of the policy, and (b) that the benefits justify the costs. I am satisfied that business impact has been assessed with the support of businesses in Scotland.

Signed:

Date:

Mairi Gougeon

Cabinet Secretary for Rural Affairs, Land Reform and Islands

Scottish Government Contact point: sandeelconsultation@gov.scot



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Any enquiries regarding this publication should be sent to us at

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