



# **Bellrock Offshore Wind Farm**

## **Wind Farm Development Area**

**Environmental Impact Assessment Report - Volume II**

**Chapter 11: Commercial Fisheries**

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## Glossary of Terminology

Term	Definition
Air gap	The lowest blade tip point of a wind turbine generator to sea clearance distance (see individual chapters for the relevant tidal levels).
Applicant	Bellrock Offshore Wind Farm Limited, the legal entity submitting Section 36 Consent and Marine Licence applications for the Bellrock Wind Farm Development Area.
Automatic identification system	A system by which vessels automatically broadcast their identity and key statistics including location, destination, length, speed and current status. Most commercial vessels and European Union fishing vessels over 15 metres (m) in length are required to carry an Automatic Identification System (AIS).
Bellrock Offshore Wind Farm (or the Bellrock Project)	<p>An offshore wind farm capable of exporting up to 1.8 GW of renewable energy to the National Electricity Transmission System.</p> <p>The Wind Farm Development Area is located 120 km east of Stonehaven, and will connect to the National Electricity Transmission System at the proposed SSEN Transmission Hurlie substation, west of Stonehaven in Aberdeenshire. The Bellrock Offshore Wind Farm comprises of the following Development Areas:</p> <ul style="list-style-type: none"> <li>▪ Wind Farm Development Area;</li> <li>▪ Offshore Transmission Development Area; and</li> <li>▪ Onshore Transmission Development Area.</li> </ul>
Broadshore Offshore Wind Farm	<p>An offshore wind farm capable of supplying around 900 MW of renewable energy to the National Electricity Transmission System. Additional capacity may also be developed for overplanting purposes.</p> <p>The Wind Farm Development Area is located 47 km north of Fraserburgh and will connect to the National Grid Electricity Transmission System at the Netherton Hub, west of Peterhead in Aberdeenshire. The Broadshore Offshore Wind Farm comprises of the following Development Areas:</p> <ul style="list-style-type: none"> <li>▪ Wind Farm Development Area;</li> <li>▪ Offshore Transmission Development Area; and</li> <li>▪ Onshore Transmission Development Area.</li> </ul>
Bycatch	Catch which is retained and sold but is not the target species for the fishery.
Cable Protection	Protective measure to minimise the effects of scour and hazards along the inter-array cables, and protecting these cables at infrastructure crossing points.
Commencement of construction	<p>Commencement of construction to install the Wind Farm Infrastructure as authorised by the Wind Farm Development Area Section 36 Consent and Marine Licence (excluding site preparation works), being the earlier of:</p> <ul style="list-style-type: none"> <li>▪ Intrusive pre-installation surveys;</li> <li>▪ Placement on or installation in the seabed of anchors and associated scour protection, and mooring lines;</li> <li>▪ Trench excavation for inter-array cables; or</li> <li>▪ Trenching for, or laying of inter-array cables on or in the seabed.</li> </ul>
Commercial fishing	Any form of fishing activity legally undertaken where the catch is sold for taxable profit.
Connector	Joint between a dynamic inter-array cable and a static inter-array cable.

<b>Term</b>	<b>Definition</b>
Covid-19 pandemic	The COVID-19 pandemic was a global outbreak of coronavirus disease, an infectious disease caused by the severe acute respiratory syndrome coronavirus, first identified in 2019.
Demersal fish species	Finfish species which live and feed on or near the seabed.
Demersal otter trawl	A demersal otter trawl is a cone shaped net that is towed on the seabed to target demersal finfish species.
Demersal seine	A seine net is a long net, with or without a bag in the centre, which is set either from the shore or from a boat for surrounding a certain area and is operated with 2 (long) ropes fixed to its ends (for hauling and herding the fish). The 'Scottish seine' process involves an encircling net shot in the open sea using very long ropes to lay out the net, and ropes on the seabed prior to towing the net closed and hauling from a boat under its own engine power
Development Area	For consenting purposes, the area for which separate consents and/or Marine Licences will be sought by the Applicant, comprising: <ul style="list-style-type: none"> <li>▪ Wind Farm Development Area;</li> <li>▪ Offshore Transmission Development Area; and</li> <li>▪ Onshore Transmission Development Area.</li> </ul>
Dynamic inter-array cable	The section of inter-array cable between the floating substructure and the seabed, which is designed to accommodate the dynamic movement of the floating substructure.
Fish stock	Any natural population of fish which is an isolated and self-perpetuating group of the same species.
Fishery	A group of vessel voyages which target the same species or use the same gear.
Fishing ground	An area of water or seabed targeted by fishing activity.
Fleet	A physical group of vessels sharing similar characteristics (e.g. nationality).
Floating offshore unit	The combined wind turbine generator and floating substructure.
Floating substructure	A floating structure which provides buoyancy and, in conjunction with the station keeping system, supports a superstructure (e.g. wind turbine generator or offshore substation), and maintaining its position within the structure's excursion limit.
Functional unit	A Nephrops functional unit is a geographic area used for managing and reporting on Nephrops populations.
Gear type	The method/equipment used for fishing.
Inter-array cable	Armoured cable containing electrical and fibre optic cores, which link the wind turbine generators to each other and to the subsea cable hubs and/or the offshore substations and include dynamic inter-array cable and static inter-array cable sections.
International Council for the Exploration of the Seas statistical rectangles	ICES standardise the division of sea areas to enable statistical analysis of data. Each ICES statistical rectangle is '30 min latitude by 1 degree longitude' in size (approximately 30 x 30 nm). A number of rectangles are amalgamated to create ICES statistical areas.
Landings	Quantitative description of the amount of fish returned to port for sale, in terms of value or weight.

<b>Term</b>	<b>Definition</b>
Minimum conservation reference size	For the protection and conservation of fisheries resources, minimum conservation reference size are applied to certain species of fish and shellfish. The minimum conservation reference size is the size of a living marine aquatic species below which restrictions or incentives apply that aim to avoid capture through fishing activity.
Offshore export cable	Armoured cable containing electrical and fibre optic cores between the offshore substation(s) and the transition joint bay(s).
Offshore Transmission Development Area	The boundary within which the Offshore Transmission Infrastructure will be constructed, operated and maintained, and decommissioned (and includes the whole of the Wind Farm Development Area).
Offshore Transmission Infrastructure	Infrastructure located within the Offshore Transmission Development Area including fixed bottom and/or floating offshore substations, offshore reactive compensation station(s) and associated scour protection; interconnector cables and associated cable protection; and offshore export cables and associated cable protection (including activities associated with the Offshore Transmission Infrastructure construction, operation and maintenance, and decommissioning).
Onshore Transmission Development Area	The boundary within which the Onshore Transmission Infrastructure will be constructed, operated and maintained, and decommissioned.
Onshore Transmission Infrastructure	Infrastructure located within the Onshore Transmission Development Area including transition joint bay(s); onshore export cables; onshore substation; temporary construction compounds; temporary working areas; environmental mitigation areas; drainage/irrigation infrastructure; access works; and any other associated infrastructure (including activities associated with the Onshore Transmission Infrastructure construction, operation and maintenance, and decommissioning).
Operational life	The expected operational life of the Wind Farm Infrastructure from the Commercial Operation Date to the first floating offshore unit being decommissioned.
Otter trawl	A net with large rectangular boards (otter boards) which are used to keep the mouth of the trawl net open. Otter boards are made of timber or steel and are positioned in such a way that the hydrodynamic forces, acting on them when the net is towed along the seabed, pushes them outwards and prevents the mouth of the net from closing.
Pelagic fish species	Finfish species which live within the water column, not on or near the seabed or at the coasts.
Pelagic trawl	A cone shaped net used to target fish species in the mid-water column.
Potting	Pots (which may be referred to as creels) are generally rigid structures into which fish or shellfish are guided or enticed through funnels that make entry easy but from which escape is difficult. There are many different styles and designs, each one has been designed to suit the behaviour of its target species.
Project design envelope	Includes all relevant technical, spatial and temporal elements of the Wind Farm Infrastructure, and the proposed methodology to be employed for construction, operations and maintenance, and decommissioning.
Quota	A proportion of the total allowable catch for a fish stock.
Recruitment	Recruitment can be defined as the number of fish surviving to enter the fishery or to some life history stage such as settlement or maturity.

<b>Term</b>	<b>Definition</b>
Safety Zone	An area of water around or adjacent to a floating offshore unit which is to be constructed, extended, operated or decommissioned, from which certain or all classes of vessels are excluded and within which activities can be regulated for the purpose of securing safety of the floating offshore unit or vessel in that vicinity, and individuals on the floating offshore unit and vessel, in line with Section 95 of the Energy Act 2004.
Scallop dredge	A method to catch scallop using steel dredges with a leading bar fitted with a set of spring-loaded, downward pointing teeth. The teeth on the bar at the front of the dredge are approximately 120 mm in length, but typically only the front 20 mm penetrate the seabed to dislodge scallops from the sand. Behind this toothed bar (sword), a mat of steel rings is fitted. A heavy net cover (back) is laced to the frame, sides and to the after end of the mat to form a bag.
Scaraben Offshore Wind Farm	<p>An offshore wind farm capable of supplying up to 99.5 MW of renewable energy to the National Electricity Transmission System.</p> <p>The Wind Farm Development Area is located 58 km north of Fraserburgh and will connect to the National Electricity Transmission System at the Netherton Hub, west of Peterhead in Aberdeenshire. The Scaraben Project comprises of the following Development Areas:</p> <ul style="list-style-type: none"> <li>▪ Wind Farm Development Area;</li> <li>▪ Offshore Transmission Development Area; and</li> <li>▪ Onshore Transmission Development Area.</li> </ul>
ScotWind	A Crown Estate Scotland leasing round for offshore wind projects in which the process enabled developers to apply for seabed rights to plan and build wind farms in Scottish waters.
Scour protection	Protective material positioned around anchors to avoid sediment being eroded as a result of the flow of water.
Shellfish species	Aquatic invertebrates with a hard outer covering, either a shell or a shell-like exoskeleton, that are commonly eaten as food.
Sinclair Offshore Wind Farm	<p>An offshore wind farm capable of supplying up to 99.5 MW of renewable energy to the National Electricity Transmission System.</p> <p>The Wind Farm Development Area is located 61 km north of Fraserburgh and will connect to the National Electricity Transmission System at the Netherton Hub, west of Peterhead in Aberdeenshire. The Sinclair Project comprises of the following Development Areas:</p> <ul style="list-style-type: none"> <li>▪ Wind Farm Development Area;</li> <li>▪ Offshore Transmission Development Area; and</li> <li>▪ Onshore Transmission Development Area.</li> </ul>
Site preparation works	<p>Preparatory activities undertaken within the Wind Farm Development Area prior to the commencement of construction of the Wind Farm Infrastructure, which may comprise (and which may require separate consents):</p> <ul style="list-style-type: none"> <li>▪ Geophysical surveys, geotechnical surveys, and non-archaeological/archaeological diver/ remotely operated vehicle surveys;</li> <li>▪ Seabed preparation including sand wave levelling, slope levelling for gravity based anchors (if selected), boulder clearance, and pre-lay grapnel runs;</li> <li>▪ Unexploded ordnance survey and/or clearance;</li> <li>▪ Debris clearance; and</li> </ul>

<b>Term</b>	<b>Definition</b>
	<ul style="list-style-type: none"> <li>▪ Out of service cable/pipeline removal.</li> </ul>
Static inter-array cable	The section of inter-array cable that is not designed to move.
Station keeping system	The system (including mooring lines and anchors) used to hold a floating offshore unit within its excursion limit and maintain the intended orientation of the floating offshore unit.
Subsea cable hub	A subsea device, with a gravel pad foundation, which allows the connection of multiple inter-array cables.
Total allowable catch	Total allowable catches are catch limits, expressed in tonnes or numbers, that are set for some commercial fish stocks.
Vessel monitoring system	A system used in commercial fishing to allow environmental and fisheries regulatory organisations to monitor, minimally, the position, time at a position, and course and speed of fishing vessels.
Vivier	Vivier crabbers are generally larger vessels with the ability to retain large numbers of live crab onboard in storage tanks.
Wind Farm Development Area	The boundary within which the Wind Farm Infrastructure will be constructed, operated and maintained, and decommissioned.
Wind Farm Infrastructure	Infrastructure located within the Wind Farm Development Area including wind turbine generators; floating substructures, station keeping systems and associated scour protection; inter-array cables and associated cable protection; subsea cable hubs; and ancillary infrastructure including buoys (including activities associated with the Wind Farm Infrastructure construction, operation and maintenance, and decommissioning).
Wind turbine generator	A wind turbine generator converts wind energy into electrical energy. The main components include rotor assembly (composed of three blades and a hub); nacelle (containing the generator, shaft and gearbox, power electronic converter and transformer); and a tower (containing lifting equipment and switchgear).

## Glossary of Abbreviations

<b>Term</b>	<b>Definition</b>
AIS	Automatic Identification System
CBRA	Cable burial risk assessment
CEA	Cumulative Effects Assessment
Cefas	Centre for Environment, Fisheries, and Aquaculture Science
COLREGs	Convention on the International Regulations for Preventing Collisions at Sea, 1972
CMS	Construction Method Statement
DP	Decommissioning Programme
DSLIP	Development Specification and Layout Plan
EEA	European Economic Area
EEZ	Exclusive Economic Zone
EIA	Environmental impact assessment
EMF	Electromagnetic Field
EMP	Environmental Management Plan
ERCoP	Emergency Response Cooperation Plan
ESCA	European Subsea Cables Association
EU	European Union
FLO	Fisheries Liaison Officer
FLOWW	The Fisheries Liaison with Offshore Wind and Wet Renewables Group
FMMCP	Fisheries Mitigation, Monitoring and Communication Plan (previously known as the Fisheries Management and Mitigation Strategy)
FMMS	Fisheries Management and Mitigation Strategy
FOU	Floating offshore unit
FSSs	Floating substructures
H&S	Health and safety
IAC	Inter-array cable
IA-CaP	Inter-array Cable Plan
ICES	International Council for the Exploration of the Seas statistical rectangles
INNSMP	Invasive Non-native Species Mitigation Plan

<b>Term</b>	<b>Definition</b>
LMP	Lighting and Marking Plan
MARPOL	International Convention for the Prevention of Pollution from Ships
MCA	Maritime and Coastguard Agency
MD-LOT	Marine Directorate-Licensing and Operations Team
MD-SEDD	Marine Directorate Science, Evidence Data and Digital
MMO	Marine Management Organisation
MMMP	Marine Mammals Mitigation Protocol
MPA	Marine Protected Area
MPCP	Marine Pollution Contingency Plan
NLB	Northern Lighthouse Board
NMPi	National Marine Plan Interactive
NSP	Navigational Safety Plan
OFLO	Offshore Fisheries Liaison Officer
OfTDA	Offshore Transmission Development Area
O&M	Operation and maintenance
OMP	Operation and Maintenance Plan
s.36	Section 36 of the Electricity Act 1989
SFF	Scottish Fishermen's Federation
SKS	Station keeping system
SOLAS	International Convention for the Safety of Life at Sea
SOMP	Seabed Obstruction Mitigation Plan
SPFA	Scottish Pelagic Fisherman's Association
SWFPA	Scottish White Fish Producers Association
TR	Trawl
UK	United Kingdom
UXO	Unexploded ordnance
VMNMP	Vessel Management and Navigational Safety Plan
VMP	Vessel Management Plan

<b>Term</b>	<b>Definition</b>
VMS	Vessel Monitoring System
WFDA	Wind Farm Development Area
WTG	Wind turbine generator

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# 11 Commercial Fisheries

## 11.1 Introduction

1. This Chapter of the Bellrock Wind Farm Development Area (WFDA) Environmental Impact Assessment (EIA) Report presents an assessment of potential effects on commercial fisheries from the construction, operation and maintenance (O&M), and decommissioning phases of the Bellrock Wind Farm Infrastructure.
2. This Bellrock WFDA EIA Report considers the Bellrock Wind Farm Infrastructure which comprises wind turbine generators (WTGs); floating substructures (FSSs), station keeping systems (SKSs) and associated scour protection; inter-array cables (IACs) and associated cable protection; subsea cable hubs; and ancillary infrastructure including buoys. Further detail on the Bellrock Wind Farm Infrastructure is provided in **Chapter 4: Project Description (Volume II)**.
3. This Chapter of the Bellrock WFDA EIA Report has been prepared to provide the Marine Directorate - Licensing and Operations Team (MD-LOT) (on behalf of the Scottish Ministers) and stakeholders with sufficient information to determine the potential effect(s) of the Bellrock Wind Farm Infrastructure on commercial fisheries receptors.
4. This Chapter should be read in conjunction with the following chapters of the Bellrock WFDA EIA Report:
  - **Chapter 8: Fish and Shellfish Ecology (Volume II)**;
  - **Chapter 12: Shipping and Navigation (Volume II)**; and
  - **Chapter 16: Socioeconomics, Tourism and Recreation (Volume II)**.
5. The commercial fisheries assessment is likely to have key inter-relationships with the above chapters, which will be considered appropriately throughout this Bellrock WFDA EIA Report.
6. In addition, the following documents support this Chapter:
  - **Appendix 11.1: Commercial Fisheries Baseline Report (Volume IV)**; and
  - **Fisheries Mitigation, Monitoring and Communication Plan (FMMCP) (Volume V)**.
7. This Chapter was prepared by NiMa Consultants Limited.

## 11.2 Legislation, Policy and Guidance

8. **Table 11.1** describes the legislation, policy and guidance which have been considered in the preparation of this Chapter. The overarching policy and legislation relevant to the commercial fisheries is described in **Chapter 2: Policy and Legislative Context (Volume II)**.
9. Any legislation referred to in this EIA Report is as subsequently amended and as currently in force as at the date of this EIA Report.

**Table 11.1: Summary of Relevant Legislation, Policy and Guidance for Commercial Fisheries**

Relevant Legislation, Policy or Guidance	Relevance to the Assessment
<b>Legislation</b>	
Marine (Scotland) Act 2010	Additional Marine Protected Area (MPA) management is considered in the potential cumulative impacts on commercial fisheries in <b>Section 11.9</b> .
The Inshore Fishing (Prohibition of Fishing and Fishing Methods) (Scotland) Order 2004	All applicable fisheries legislation is considered to form an integral part of the regulatory and operational baseline under which commercial fisheries operate. These legislative instruments define the spatial and temporal parameters, gear types, effort limitations, and conservation measures that govern fishing activity. As such, they are inherently embedded in the baseline characterisation of commercial fisheries.  The commercial fisheries baseline is summarised in <b>Section 11.6</b> with further details provided in <b>Appendix 11.1: Commercial Fisheries Baseline Report (Volume IV)</b> .
Sea Fish (Conservation) Act 1967	
The Sea Fishing (Licences and Notices) (Scotland) Regulations 2011	
Inshore Fishing (Scotland) Act 1984	
The Inshore Fishing (Prohibition of Fishing and Fishing Methods) (Scotland) Order 2004	
The Sandeel (Prohibition of Fishing) (Scotland) Order 2024	
Aquaculture and Fisheries (Scotland) Act 2007	
Fisheries Act 2020	
Climate Change (Scotland) Act 2009 (indirect)	
<b>Policy</b>	
Draft Updated Sectoral Marine Plan for Offshore Wind (Scottish Government, 2025c) (including the accompanying draft Strategic Environmental Assessment (Scottish Government, 2025d) and the Social and Economic Impact Assessment (Scottish Government, 2025e))	Relevant Sector Marine Plan principles are reflected in this assessment, including taking account of other marine users and applying evidence-led planning and mitigation. These principles have been integrated through detailed baseline characterisation of commercial fishing activity, and early consultation which have directly informed the assessment of impacts.  In addition, the Applicant has committed to embedded mitigation (see <b>Section 11.7.3</b> ), and additional secondary mitigation such as early communication of construction activities and monitoring pre-, during and post-construction (see <b>Section 11.8</b> ).

Relevant Legislation, Policy or Guidance	Relevance to the Assessment
<p>Sectoral Marine Plan for Offshore Wind Energy (Scottish Government, 2020c)</p> <p>(The 2020 SMP is undergoing review to reflect the ScotWind and Innovation and Targeted Oil and Gas (INTOG) leasing rounds, and is anticipated to be published in summer 2026)</p>	<p>Reflecting the key risk factors identified in the East Region Plan Option areas, this Chapter presents an assessment of potential impacts on commercial fisheries in <b>Section 11.8</b>.</p>
<p>Scotland's National Marine Plan (Scottish Government, 2015)</p> <p>The SNMP is currently being updated, transitioning to the Scottish National Marine Plan 2. Consultation on the SNMP ran from 5 November 2024 to 7 February 2025 and a consultation analysis report has been produced by the Scottish Government (2025)</p>	<p>Reflecting the key issues that should be addressed in an impact assessment and any FMMCP, this Bellrock WFDA EIA:</p> <ul style="list-style-type: none"> <li>▪ Assesses the potential impacts of the Bellrock Wind Farm Infrastructure on commercial fisheries in <b>Section 11.8</b>; and</li> <li>▪ Sets out measures to mitigate any constraints that the Bellrock Wind Farm Infrastructure may place on commercial fishing activity in <b>Section 11.7.3</b> and <b>Section 11.8</b>.</li> </ul>
<p>United Kingdom (UK) Marine Policy Statement (HM Government, 2011)</p>	<p>Reflecting the desire for co-existence of activities in the marine environment, this Chapter presents an assessment of potential impacts on commercial fisheries in <b>Section 11.7.3</b> and <b>Section 11.8</b>.</p>
<b>Guidance</b>	
<p>Good Practice Guidance for assessing fisheries displacement by other licensed marine activities (Scottish Government, 2022)</p>	<p>All guidance has been used to inform the development of baseline characterisation, as presented in <b>Section 11.6</b> and <b>Appendix 11.1: Commercial Fisheries Baseline Report (Volume IV)</b>, together with the impact assessments undertaken in <b>Section 11.8</b> and <b>Section 11.9</b>.</p> <p>It is noted that the Scottish Fishermen's Federation (SFF) and related Associations have withdrawn from the FLOWW process. In the absence of alternative guidance supported by SFF, the Applicant will continue to adopt the FLOWW guidance and review its position should alternative guidance supported by SFF and related Associations be published.</p> <p>Relevant Scottish Government guidance, including Guidance on Claim for Compensation for Damage or Loss of Fishing Gear, Loss of Fishing Time, or Damage to Vessel by Suspected Offshore Renewable Activity (Scottish Government, 2021), has also been considered where applicable.</p>
<p>Best Practice Guidance for Fishing Industry Financial and Economic Impact Assessments (United Kingdom Fisheries Economic Network and Seafish, 2012)</p>	
<p>The Fisheries Liaison with Offshore Wind and Wet Renewables Group (FLOWW) Best Practice Guidance for Fisheries Liaison with Offshore Renewables Developments (FLOWW, 2025)</p>	
<p>Guidance on Commercial Fisheries Mitigation and Opportunities from Offshore Wind commissioned by Collaborative Offshore Wind Research into the Environment (Blyth-Skyrme, 2010a)</p>	
<p>Developing guidance on fisheries Cumulative Impact Assessment for wind farm developers (Blyth-Skyrme, 2010b)</p>	
<p>Guidelines for data acquisition to support marine environmental assessments of offshore renewable energy projects. Contract report: ME5403 (Centre for Environment Fisheries and Aquaculture Science (Cefas), 2012)</p>	

Relevant Legislation, Policy or Guidance	Relevance to the Assessment
Guidelines for liaison with the fishing industry on the United Kingdom Continental Shelf – Issue 8 (Offshore Energies UK, 2023)	
Fishing and Submarine Cables - Working Together (International Cable Protection Committee, Drew 2009)	
European Subsea Cables Association Guideline 01 and Appendices (ESCA, 2018)	
Guidance on preparing Mitigation and Monitoring Plans (Scottish Government, 2025a)	
Guidance on Licensing and EIA requirements for offshore wind farms (Cefas, 2004)	
The North and East Coast Regional Inshore Fisheries Group Fisheries Management Plan 2019 (North and East Coast Regional Inshore Fisheries Group, 2019)	
Recommendations for positive interactions between offshore wind farms and fisheries. Executive Agency for Small and Medium-sized Enterprises (European Commission) (Dupont et al. 2020)	
Offshore windfarms - monitoring impacts on the commercial fishing industry: good practice guidance (Scottish Government, 2025b)	
Guidance on Claim for Compensation for Damage or Loss of Fishing Gear, Loss of Fishing Time, or Damage to Vessel by Suspected Offshore Renewable Activity (Scottish Government, 2021)	

## 11.3 Consultation

10. Consultation undertaken to date for the Bellrock Wind Farm Infrastructure relevant to commercial fisheries has been in line with the general process described in **Chapter 5: Environmental Impact Assessment Methodology (Volume II)**. Key consultation pertinent to this Chapter is provided in **Table 11.2** below. As part of the development process of the FMMCP, consultation with the SFF was undertaken. Feedback received from the SFF, relevant to the FMMCP, is presented within the FMMCP itself, along with detail on how the feedback has been considered.
11. Since March 2023, quarterly commercial fisheries meetings have been held with the SFF, Scottish White Fish Producers Association (SWFPA) Scottish Pelagic Fishermen's Association (SPFA), and the North and East Coast Regional Inshore Fisheries Group to maintain regular, two-way communication with commercial fisheries stakeholders, provide updates on project progress, discuss potential interactions with fishing activity, and gather feedback to inform project design, assessment and mitigation development.
12. In May 2023 the Applicant hosted a two-day fishers consultation event in Peterhead and Fraserburgh, allowing direct engagement with fishers at an early stage of the development of the Wind Farm Infrastructure. In May 2024, the Applicant also attended the Scottish Skippers Expo, to raise awareness of the Bellrock Wind Farm Infrastructure and promote engagement on commercial fisheries interactions. The Applicant is also a member of the East Region Commercial Fisheries Working Group, formed in 2024 and attended by offshore wind developers and SFF, SWFPA, SPFA, and North and East Regional Inshore Fisheries.
13. Engagement with fisheries stakeholders has confirmed broad agreement with the commercial fisheries baseline presented within this Chapter and **Appendix 11.1: Commercial Fisheries Baseline Report (Volume IV)**. Stakeholders highlighted relevant fishing grounds within parts of the Bellrock WFDA, which are identifiable within the baseline data and associated figures. Their input helped to validate the spatial representation of fishing activity and ensured that these fishing areas are accurately reflected in the assessment.

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Table 11.2: Consultation Relevant to Commercial Fisheries

Consultee	Date/Document	Comment	How/Where Comment is Addressed
SFF, SWFPA, and SPFA	Quarterly Commercial Fisheries Meetings: <ul style="list-style-type: none"> <li>▪ 20 March 2023</li> <li>▪ 1 August 2023</li> <li>▪ 26 September 2023</li> <li>▪ 16 January 2024</li> <li>▪ 16 April 2024</li> <li>▪ 16 July 2024</li> <li>▪ 5 November 2024</li> <li>▪ 21 January 2025</li> <li>▪ 15 July 2025</li> <li>▪ 29 October 2025</li> </ul>	Request for early consultation with local fishers. Quarterly meetings established to provide an opportunity to discuss project updates.	<b>Section 11.3</b> (Consultation) and <b>Table 11.2</b> (this table) summarise the quarterly meetings and early engagement with fishers; ongoing liaison secured via the FMMCP ( <b>Volume V</b> ).
		<b>Appendix 1.1: Bellrock WFDA Scoping Report (Volume IV)</b> methodology for commercial fisheries was discussed on 16 January 2024, and presentation forwarded post meeting, for comment. Noted that data for pelagic fleets could be provided by the SPFA.	<b>Section 11.3</b> and <b>Table 11.2</b> record the discussion of the scoping methodology; the EIA methodology is set out in <b>Section 11.4</b> and the baseline methods are detailed in <b>Appendix 11.1: Commercial Fisheries Baseline Report (Volume IV)</b> (Sections 3 and 7).
		Commercial fisheries stakeholders highlighted that commercial fisheries datasets should cover a longer temporal period (greater than five years) to show impacts of the Covid-19 pandemic and Brexit.	Baseline datasets use multi-year time series (e.g. 2010 – 2023 landings; multi-year AIS/VMS), described in <b>Section 11.5.2</b> (Data Sources) and <b>Table 11.9</b> , with full analysis and trends in <b>Appendix 11.1: Commercial Fisheries Baseline Report</b> (Section 6) ( <b>Volume IV</b> ).
		Commercial fisheries stakeholders wish to be included in other relevant discussions, such as navigation, and shellfish ecology, not just commercial fisheries.	Inter-relationships with Shipping & Navigation and Fish & Shellfish Ecology are identified in <b>Section 11.1</b> and assessed in <b>Section 11.10</b> (Inter-related and interacting impacts), supported by <b>Chapter 8: Fish and Shellfish Ecology (Volume II)</b> and <b>Chapter 12: Shipping and Navigation (Volume II)</b> .
		Commercial fisheries stakeholders state that fishing activity takes place to the east of the Bellrock WFDA in association with Ooze Hole and Devil's Hole. [Note the Ooze Hole forms part of the Devil's Hole and is referred to within the Chapter as the Devil's Hole].	The Devil's Hole / Ooze Hole fishing grounds and the eastern-WFDA Nephrops activity are described in <b>Section 11.6</b> and <b>Appendix 11.1: Commercial Fisheries Baseline Report (Volume IV)</b> (Nephrops and spatial fishing activity, Section 7 and figures).

Consultee	Date/Document	Comment	How/Where Comment is Addressed
		Commercial fisheries stakeholders state that fishers wanting to target the Ooze Hole fishing grounds would need to transit an additional six miles to reach these grounds with the Bellrock Wind Farm Infrastructure in place, and as such, the impact of additional steaming to alternative fishing grounds should be scoped into the assessment for the O&M phase, as it is currently scoped out.	Additional steaming is scoped in for all phases ( <b>Table 11.11</b> ) and assessed under Impacts C5/O5/D5 within <b>Section 11.8</b> , with baseline transit context in <b>Appendix 11.1: Commercial Fisheries Baseline Report (Volume IV)</b> (AIS/VMS spatial activity, Section 7).
		SPFA stated that the Bellrock Wind Farm Infrastructure should not impact the pelagic fleet.	Pelagic activity and overlap are characterised in <b>Section 11.6</b> and <b>Appendix 11.1: Commercial Fisheries Baseline Report (Volume IV)</b> (pelagic trawl, landings and spatial data), and effects are assessed in <b>Section 11.8</b> with minor/low effects predicted for pelagic fleets.
		Commercial fisheries stakeholders highlighted that at present there are data gaps, that need further research, to understand offshore wind impacts on commercial fishing.	Data gaps and uncertainties are acknowledged in <b>Section 11.5</b> and <b>Appendix 11.1: Commercial Fisheries Baseline Report (Volume IV)</b> Section 3.3 (Data limitations and uncertainties), informing the precautionary assessment.
Local fishers	<ul style="list-style-type: none"> <li>▪ 9 May 2023</li> <li>▪ 10 May 2023</li> </ul>	Consultation events held in Peterhead and Fraserburgh respectively, to discuss fisher activity within and around the Bellrock WFDA.	<b>Section 11.3</b> and <b>Table 11.2</b> describe the Peterhead and Fraserburgh consultation events and how feedback informed baseline and assessment.
Local fishers		Consultees raised the position of Bellrock WFDA as it overlaps with a discrete high intensity mobile fishing grounds. As the intention is to install floating turbines, this overlap was a concern due to the potential exclusion of the mobile fleet.	High-intensity mobile fishing grounds and potential exclusion are reflected in baseline mapping ( <b>Section 11.6</b> and <b>Appendix 11.1: Commercial Fisheries Baseline Report (Volume IV)</b> (Section 7) and assessed for access/exclusion in <b>Section 11.8</b> (Impacts C1/O1/D1).

Consultee	Date/Document	Comment	How/Where Comment is Addressed
Local fishers		The introduction of Electromagnetic Fields (EMF) above background levels from the installation of inter-array (and offshore export cables) was raised by consultees. Fishers questioned the potential effects on target shellfish species and resultant effects on the body of evidence regarding EMFs. Fishers advised that they require more evidence and advised that they have experienced reduced landings around the Hywind offshore export cable.	EMF concerns are considered via <b>Chapter 8: Fish and Shellfish Ecology (Volume II)</b> assessment of EMF and linked commercial fisheries effects in <b>Sections 11.10 and 11.8 Impacts C3/O3/D3</b> .
MD-LOT & Marine Directorate – Science, Evidence, Data and Digital (MD-SEDD)	15 December 2023, email response to Bellrock WFDA Scoping Workshop held 30 October 2023	<p>MD-SEDD advise that they are content with the data sources listed in the presentation and advise that the following data is also used to establish a more detailed picture of the inshore fisheries, especially for vessels 12 m of length and under use the gridded fisheries data layers available at National Marine Plan Interactive (NMPi):</p> <ul style="list-style-type: none"> <li>▪ Fishing - Scottish Under 12 m vessels - Annual average value (2017- 2021) of Pots and Traps (£);</li> <li>▪ Fishing - Scottish Under 12 m vessels - Annual average value (2017- 2021) of Bottom Trawls (£) Fishing - Scottish Under 12m vessels - Annual average value (2017- 2021) of Dredges (£);</li> <li>▪ Fishing - Scottish Under 12 m vessels - Annual average value (2017- 2021) of Rod and Lines (£); and</li> <li>▪ Fishing - Scottish Under 12 m vessels - Annual average value (2017- 2021) of Other gears (£).</li> </ul>	Use of NMPi under-12 m layers is reflected in the baseline data sources ( <b>Table 11.9</b> ) with detailed methods and outputs in <b>Appendix 11.1: Commercial Fisheries Baseline Report (Volume IV)</b> (Table 3.1; Figures 11.19 – 11.23).
MD-LOT and MD-SEDD	15 December 2023, email response to Bellrock WFDA Scoping Workshop held 30 October 2023	MD-SEDD advise that a commercial fisheries displacement assessment be carried out following the guidance in the 'Good practice guidance for assessing fisheries displacement by other licensed marine activities' (Xodus, 2022).	Displacement assessment follows Scottish Government guidance as set out in <b>Section 11.4</b> and applied in <b>Section 11.8 (C2/O2/D2)</b> .
Local communities	Broadshore and Bellrock Public Consultation 05 to 09 February 2024	Some fishers expressed they would prefer to hear from the project team directly, rather than through fishing associations.	Preferences for direct engagement are addressed in <b>Section 11.3</b> and secured through ongoing liaison measures within the FMMCP ( <b>Volume V</b> ), including Offshore Fisheries Liaison Officer (OFLO)/fisheries liaison provisions.

Consultee	Date/Document	Comment	How/Where Comment is Addressed
Fisheries stakeholders	<ul style="list-style-type: none"> <li>▪ 9 May 2024</li> <li>▪ 10 May 2024</li> </ul>	Potential impact of EMF on fish populations was raised.	EMF raised during consultation is addressed through <b>Chapter 8: Fish and Shellfish Ecology (Volume II)</b> EMF assessment and linked fisheries considerations in <b>Sections 11.8 and 11.10</b> .
Fisheries stakeholders		There was negative sentiment surrounding compensatory measures for ongoing survey work conducted by other offshore wind and transmission infrastructure developers, in particular relating to the duration of displacement and insufficient communications.	Representations on compensation/communications are acknowledged in <b>Section 11.3</b> and addressed through embedded mitigation and liaison measures ( <b>Section 11.7.3; Table 11.13</b> ) and the FMMCP ( <b>Volume V</b> ).
MD-LOT	Bellrock WFDA Scoping Opinion (2024), Paragraph 5.7.1	The Scottish Ministers advise that they are broadly content with the proposed study area shown in Figure 10.4.1 of the Bellrock WFDA Scoping Report.	Study area scope is defined in <b>Section 11.5.1</b> and shown in <b>Appendix 11.1: Commercial Fisheries Baseline Report (Volume IV)</b> Figure 11.1.
MD-LOT	Bellrock WFDA Scoping Opinion (2024), Paragraph 5.7.2	<p>The Scottish Ministers advise that they are broadly content with the data sources used to characterise the baseline as detailed in Table 1.3 of the Bellrock WFDA Scoping Report. However, they highlight that Automatic Identification System (AIS) fishing vessel tracks over at least a five year period must be used in the Bellrock WFDA EIA Report, as detailed in the advice on commercial fisheries from MD-SEDD.</p> <p>Additionally, Scottish Ministers highlight the representation made by the SFF with regards to the use of pre-Brexit data to ensure a realistic baseline of fishing activity and the collection of fishing plotter data from fisheries organisations and specific data from smaller vessels and request that this is fully considered in the Bellrock WFDA EIA Report.</p>	Baseline data requirements (5+ years AIS, pre-Brexit context, plotter/smaller vessel data) are addressed in <b>Section 11.5</b> and <b>Appendix 11.1: Commercial Fisheries Baseline Report (Volume IV)</b> (Tables 3.1–3.2; Sections 6–7).

Consultee	Date/Document	Comment	How/Where Comment is Addressed
MD-LOT	Bellrock WFDA Scoping Opinion (2024), Paragraph 5.7.3	<p>Table 10.4 of the Bellrock WFDA Scoping Report summarises the impacts proposed to be scoped in, whilst Table 10.5 summarises those proposed to be scoped out of the assessment in the Bellrock WFDA EIA Report for commercial fisheries. The Scottish Ministers, advise that, whilst broadly in agreement with the impacts scoped in and out, the Applicant should note the MD-SEDD commercial fisheries advice and SFF representation regarding additional steaming time during all phases of the project being scoped in, and advise that this must be scoped in for assessment in the Bellrock WFDA EIA Report.</p> <p>Additionally, for the avoidance of doubt the Scottish Ministers also advise that “physical presence of infrastructure and potential exposure of that infrastructure leading to gear snagging” must be scoped in for all phases of the Project. The Scottish Ministers also draw attention to the representation made by SFF regarding human casualties and gear snagging and request that this is fully considered in the Bellrock WFDA EIA Report.</p> <p>In addition, the Scottish Ministers highlight the SFF representation relating to boulder clearance, and the risk of vessel to structure allision for consideration</p>	Impacts on additional steaming and gear snagging are scoped in ( <b>Table 11.11</b> ) and assessed in <b>Section 11.8</b> (C5/O5/D5 and C6/O6/D6). Boulder clearance considerations are reflected in the realistic worst-case ( <b>Table 11.12</b> ) and mitigation ( <b>Table 11.13</b> ).
MD-LOT	Bellrock WFDA Scoping Opinion (2024), Paragraph 5.7.4	In terms of mitigation, the Scottish Ministers highlight the representation from the SFF which includes comments on Fisheries Management and Mitigation Strategy (FMMS) (now the FMMCP) and Navigational Safety Plan commitments included in Section 10.5.1 of the Bellrock WFDA Scoping Report, as well as proposals on disruption payments, OFLO and mitigation measures once operational, which the Scottish Ministers recommend are considered.	Mitigation expectations are addressed through embedded mitigation and plans ( <b>Section 11.7.3</b> ; <b>Table 11.13</b> ) and further fisheries-specific measures within the FMMCP ( <b>Volume V</b> ).
MD-LOT	Bellrock WFDA Scoping Opinion (2024), Paragraph 5.7.5	The Scottish Ministers direct the Applicant to the SFF representation regarding design aspects of the Project, including WTG foundations, IAC, cable burial and protection and pre-construction works. The Scottish Ministers also advise that these must be fully considered by the Applicant when finalising the design parameters for the Project	Design aspects (foundations/FSS, cables, burial/protection and site preparation works) are set out in <b>Chapter 4: Project Description (Volume II)</b> and reflected in the realistic worst-case parameters in <b>Table 11.12</b> , with related effects assessed in <b>Section 11.8</b> .

Consultee	Date/Document	Comment	How/Where Comment is Addressed
MD-LOT	Bellrock WFDA Scoping Opinion (2024), Section 10.6.3	The Scottish Ministers advise that they are content with the cumulative impacts considered in Section 10.6.3 of the Bellrock WFDA Scoping Report.	Cumulative effects are addressed in <b>Section 11.9</b> .
MD-SEDD	Representation on the Bellrock WFDA Scoping Report (2024)	<p>MD-SEDD has reviewed the Bellrock WFDA Scoping Report and advise that they do not agree that the potential impact on additional steaming times during all phases of the project should be scoped out. Given the location of a known Nephrops fishing ground in the southeast of the WFDA, it is possible the array may interfere with important steaming routes out of Peterhead.</p> <p>Furthermore, MD-SEDD note that the project design has not been finalised, but if FSSs are selected (which may have mooring lines and dynamic IAC within the water column), the advisory safe distances from infrastructure could be larger leading to the whole WFDA itself acting as an obstacle for steaming, even when temporary Safety Zones for maintenance are not in effect.</p> <p>MD-SEDD note that AIS data from 2022 has been presented within the Bellrock WFDA scoping report but this does not provide enough information to justify scoping out this impact at this stage. MD-SEDD therefore advise looking at AIS fishing vessel tracks over at least 5 years to determine whether there will be a significant impact.</p>	Additional steaming is scoped in ( <b>Table 11.11</b> ) and assessed in <b>Section 11.8</b> (C5/O5/D5), using multi-year AIS/VMS evidence described in <b>Section 11.5</b> and <b>Appendix 11.1: Commercial Fisheries Baseline Report (Volume IV)</b> (Section 7).
MD-SEDD	Representation on the Bellrock WFDA Scoping Report (2024)	MD-SEDD advise that clarity is provided for the impact pathway “Physical presence of infrastructure and potential exposure of that infrastructure leading to gear snagging”. It is included in Table 10.4 of impacts scoped in, however in Table 10.6 it is marked as scoped out during construction and decommissioning.	Gear snagging is scoped in for all phases ( <b>Table 11.11</b> ) and assessed in <b>Section 11.8</b> (C6/O6/D6), informed by the design envelope and realistic worst-case parameters ( <b>Table 11.12</b> ).
SFF	Representation on the Bellrock WFDA Scoping Report (2024)	SFF notes from section 3.4 ‘Wind Turbine Generator Substructure’ (p35) of the Bellrock WFDA Scoping Report that depending on the water depth (which is from c.66 m to 105 m), seabed conditions, and other factors, the Bellrock Wind Farm Infrastructure will use both floating (namely, tension leg platform, semi-submersible, buoy, semi-spar and barge) and fixed foundations designs would be considered in the EIA	Consultee design preferences were considered in developing the design envelope described in <b>Chapter 4: Project Description (Volume II)</b> and reflected in the commercial fisheries realistic worst-case parameters ( <b>Table 11.12</b> ), with implications for access/snags assessed in <b>Section 11.8</b> .

Consultee	Date/Document	Comment	How/Where Comment is Addressed
		<p>Being concerned of the spatial footprint of floating WTGs and the potential snagging hazard that their moorings system creates to fishing vessels, SFF would propose to the Applicant to use the fixed foundation design (with lesser spatial footprint) for as much WTGs as possible, as a fixed foundation wind farm in a water depth of Greater than 70 meters is planned for another offshore wind development in Scottish waters. Where use of fixed foundation WTGs is not feasible due to technical issues, in such situations, SFF's first preferred WTG floating foundation option is tension leg platform, and buoy to be the second preferred option since they have lesser spatial footprint on seabed.</p> <p>For the same reasons, SFF advise that their preferred mooring system is 'tension mooring' as defined under sub-section 3.4.1.1 (p39) of the Bellrock WFDA Scoping Report. The SFF object to the use of a shared mooring system as it would deem the floating section of the array a no take zone for fishing to continue post construction.</p>	
SFF	Representation on the Bellrock WFDA Scoping Report (2024)	SFF also notes from section 3.7.1 (p57) that for FSSs, due to the nature (and movement) of the structure, static IAC (on the seabed) and dynamic IAC (moving within the water column) are required, joined together by a connector to form one continuous cable. The dynamic IAC section is designed to accommodate the dynamic movement of the FSS. Dynamic IACs sections can be deployed in various configurations that may include: Free hanging; Lazy "S" wave; and Steep wave. Considering the footprint of the dynamic IACs sections, SFF's preferred configuration is free hanging vs the other two.	Dynamic/static IAC configurations are described in <b>Chapter 4: Project Description (Volume II)</b> and reflected in the realistic worst-case parameters for IACs ( <b>Table 11.12</b> ), with snagging/interference assessed in <b>Section 11.8 (C6/O6/D6)</b> .
SFF	Representation on the Bellrock WFDA Scoping Report (2024)	Regarding Cable Burial and Protection, SFF notes from section 3.7.2 that static sections of IAC cable may be surface laid or buried. Being concerned of fishermen's safety, first of all, SFF would suggest to the Applicants to make all efforts to reach the required depth of cable burial and avoid using cable protection measures as much as possible since the volume of cable protection mass will disrupt the marine habitat and would create snagging hazard for fishing vessels within array area.	Cable burial/protection preferences are considered within the design envelope ( <b>Chapter 4: Project Description (Volume II)</b> ) and realistic worst-case assumptions ( <b>Table 11.12</b> ), and assessed in <b>Section 11.8</b> for snagging/interference (C6/O6/D6) and disturbance pathways.

Consultee	Date/Document	Comment	How/Where Comment is Addressed
		<p>In terms of using cable protections, SFF advises that it is opposed to using concrete mattresses and rock bags in open water since they create severe snagging hazards for bottom trawl fishing vessels and static gears. SFF’s preferred cable protection measure is rock dump/protection considering industry standard rock size (1”-5”) with a 1:3 profile followed by an overtrawl sweep alongside a long-term monitoring programme.</p> <p>SFF advises that it does not object to use of sandbags in cable protection works as long as their size is not significant to create snagging hazard for fishing vessels. In terms of crossing point, as they create obstacles and snagging hazard to the fishing industry, SFF would suggest that the cable crossing should be avoided as much as possible otherwise the design of cables and pipelines crossing points should be consulted with fishing industry to ensure their impacts are mitigated.</p>	
SFF	Representation on the Bellrock WFDA Scoping Report (2024)	<p>SFF notes from section 3.9.2 (p66) that pre-construction activities include boulder clearance. Since the relocation of boulders from their natural positions and re-positioning them on new surface causes snagging hazard for fishing vessels, SFF would suggest avoiding the relocation of boulders as much as possible. However, where boulders relocation is unavoidable, we recommend the new locations/coordinates of the relocated boulders should be recorded and shared with fishermen. Fishermen require geographical readings to decimal of a minute format (3 decimal places sufficient) rather than going down to actual seconds and the datum should be WGS84 rather than ED50.</p>	<p>Boulder clearance is included in the realistic worst-case (<b>Table 11.12</b>) and disclosure of relocated boulder locations is committed as embedded mitigation (<b>Table 11.13</b>) secured through the FMMCP (<b>Volume V</b>).</p>
SFF	Representation on the Bellrock WFDA Scoping Report (2024)	<p>Regarding decommissioning, SFF notes from section 3.9.5 (p69), of the Bellrock WFDA Scoping Report that the developer is required under Section 105 of the Energy Act 2004 to prepare a Decommissioning Programme for approval by Scottish Ministers. Specific details on the decommissioning activities are not known at this stage of consent, but further details will be provided in the Bellrock WFDA EIA Report.</p> <p>To reiterate safety concern of the fishing vessels, SFF advise that they would like to see all development related infrastructures are</p>	<p>Decommissioning approach is set out in <b>Section 11.7.2 (D1)</b> and embedded mitigation measures include a Decommissioning Programme (<b>Table 11.13</b>); fisheries effects during decommissioning are assessed in <b>Section 11.8</b>.</p>

Consultee	Date/Document	Comment	How/Where Comment is Addressed
		recovered/removed to shore followed by over-trawl sweeps (seabed sweeps using fishing gears), that the seabed is restored to its pre-development condition post-decommissioning, and it is safe for fishing operations to fully resume in the area	
SFF	Representation on the Bellrock WFDA Scoping Report (2024)	SFF request that pre-Brexit data be used for the Bellrock WFDA EIA Report to present a realistic baseline of the fishing activities within the study area.	Pre-Brexit landings context is included within the baseline ( <b>Section 11.6</b> ) and <b>Appendix 11.1: Commercial Fisheries Baseline Report (Volume IV)</b> (EU DCF landings; Section 6.3).
SFF	Representation on the Bellrock WFDA Scoping Report (2024)	SFF generally recommend the collection of fishing plotter data from the fisheries organisations, and in specific data from smaller vessels that are not legally liable to use AIS or Vessel Monitoring System (VMS).	Fishing plotter data and smaller-vessel information are incorporated in the baseline description ( <b>Section 11.6</b> ) and <b>Appendix 11.1: Commercial Fisheries Baseline Report (Volume IV)</b> (Sections 3 and 7.6).
SFF	Representation on the Bellrock WFDA Scoping Report (2024)	<p>SFF provided the following comments on the proposed embedded mitigation:</p> <ul style="list-style-type: none"> <li>▪ SFF appreciate the inclusion of ‘the FMMS’ to be developed and adopted pre-consent in consultation with fishing industry to ensure all fishing industry’s concerns are considered and addressed accordingly; and</li> <li>▪ In relation to ‘Development of and adherence to a Navigational Safety Plan, that will include Notice to Mariners (via Kingfisher Bulletins or other appropriate methods)’, SFF suggest the Notice to Mariners are issued in sufficient time to avoid any disruptions to the fishing activities in the intended area.</li> </ul> <p>SFF propose the following mitigation measures to be considered:</p> <ul style="list-style-type: none"> <li>▪ As part of the proposed commitments, there is no measure for disruption payments for the fishing vessels. SFF suggest that the cooperation agreement should be considered for both the static and mobile gears where they are required to be relocated, or the impact is deemed to be significant;</li> </ul>	Mitigation measures requested (OFLO, Notice to Mariners, disruption/claims processes, operational coexistence) are addressed through embedded mitigation and plans ( <b>Section 11.7.3; Table 11.13</b> ) and detailed within the FMMCP ( <b>Volume V</b> ).

Consultee	Date/Document	Comment	How/Where Comment is Addressed
		<ul style="list-style-type: none"> <li>▪ Utilise the services of an OFLO with sufficient knowledge of fisheries and fishers that utilise the development area; and</li> <li>▪ No mention has been made to mitigation once operational and loss of fishing opportunities to the fishing industry within the floating section of the proposed array.</li> </ul>	
SFF	Representation on the Bellrock WFDA Scoping Report (2024)	<p>SFF notes from the Table 10.4 (p306) (of the Bellrock WFDA Scoping Report) that <i>'Physical presence of infrastructure and potential exposure of that infrastructure leading to gear snagging'</i> has been scoped in. SFF agree with this being scoped in; however, since snagging in some limited cases has human casualties, we propose that the possibility of a loss of life should also be highlighted as a risk of snagging hazards not just to fishing gear.</p> <p>SFF notes from section '10.6.2 Potential Impacts Scoped Out', Table 10.5 (of the Bellrock WFDA Scoping Report) that the <i>'Additional steaming to alternative fishing grounds for vessels that would otherwise cross through the Bellrock WFDA'</i> during the O&amp;M has been scoped out. SFF would like to see the above point is scoped in since it would have an impact of steaming times to and from port notwithstanding if shifting to different fishing grounds during a trip, prior to these being in place a vessel could fish uninterrupted to new grounds, with these in place they will have to detour.</p>	Snagging risk and additional steaming are scoped in (Table 11.11) and assessed in Section 11.8 (C6/O6/D6 and C5/O5/D5), with safety/communications measures secured through the Vessel Management and Navigational Safety Plan (VMNSP)/FMMCP (Section 11.7.3; Table 11.13).
Fife Council	Representation on the Bellrock WFDA Scoping Report (2024)	Fife Council state that the approach to assessment of Commercial Fisheries (Section 10) appears equally thorough and appropriate, though consultation with the local fishing community was notably limited to Peterhead and Fraserburgh it's not known how many (if any) Fife-based/registered fishers operate in this area of the North Sea.	<p>The Applicant recognises the importance of proportionate and representative fisheries consultation and engagement.</p> <p>The principal fishing ports within Fife are Pittenweem, Methil, and Anstruther. Based on information provided by the Applicant's Fisheries Liaison Officer (FLO), vessels operating out of these ports are typically smaller, inshore vessels that do not routinely operate at the offshore distances associated with the Bellrock WFDA. As set out in the Bellrock WFDA Scoping Report (Appendix 1.1 (Volume IV)), fishing activity</p>

Consultee	Date/Document	Comment	How/Where Comment is Addressed
			<p>within and around the Bellrock WFDA is mainly undertaken by larger trawling vessels, with the key ports identified as Peterhead and Fraserburgh. These ports have therefore been the primary focus of direct, location specific engagement.</p> <p>Notwithstanding this, the Applicant has sought to ensure that Fife fishing interests are appropriately represented within the consultation/engagement process. Engagement has been undertaken with the SFF, which acts as the representative body for regional fishing associations, including the Fife Fishermen's Association. As a constituent member of the SFF, communications issued to SFF are disseminated to the Fife Fishermen's Association, ensuring that Fife-based fishing interests have had the opportunity to review and respond to project information.</p> <p>On this basis, the Applicant considers that fisheries engagement undertaken to date has been proportionate and appropriately targeted, reflecting the spatial distribution of fishing activity relevant to the Bellrock WFDA.</p>

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## 11.4 Assessment Methodology

### 11.4.1 Impact Assessment Methodology

14. **Chapter 5: Environmental Impact Assessment Methodology (Volume II)** provides a summary of the general impact assessment methodology applied in the Bellrock WFDA EIA Report. The assessment will use the conceptual 'source-pathway-receptor' model. The model identifies potential impacts resulting from the proposed activities on the environment and sensitive receptors within it.
15. For commercial fisheries, receptors are defined as fleets, characterised by a combination of nationality, gear type, and target species, reflecting the distinct operational practices, spatial use, and economic dependencies of each fleet segment. The commercial fisheries receptors, relevant to the Bellrock WFDA are classified as:
  - UK demersal otter trawl targeting Nephrops *Nephrops norvegicus*, and/or haddock *Melanogrammus aeglefinus*, monkfish *Lophius piscatorius*, *L. budegassa*, whiting *Merlangius merlangus*, turbot *Scophthalmus maximus* and mixed demersal species;
  - UK demersal seine targeting haddock, monkfish, whiting and mixed demersal species;
  - UK pelagic trawl and purse seine targeting mackerel *Scomber scombrus* and herring *Clupea harengus*;
  - Non-UK pelagic trawl and purse seine targeting mackerel and herring;
  - UK scallop dredge targeting king scallop *Pecten maximus*; and
  - UK potting targeting lobster *Homarus gammarus* and brown crab *Cancer pagurus*.
16. Where appropriate, the UK demersal otter trawl (TR) fleet is further separated into the following specific receptors:
  - TR1: Whitefish - UK demersal otter trawl targeting whitefish and using gear type TR1 (i.e. codend mesh size range of  $\geq 100$  mm; and
  - TR2: Nephrops - UK demersal otter trawl targeting Nephrops and using gear type TR2 (i.e. codend mesh size of 70 - 99 mm).
17. If not specified or separated into TR category, then reference to the UK demersal otter trawl fleet covers both the TR1: Whitefish and TR2: Nephrops components.
18. **Appendix 11.1: Commercial Fisheries Baseline Report (Volume IV)** provides full details on the receptor groups.

### 11.4.1.1 Definitions of Sensitivity and Magnitude

19. The characterisation of the existing environment helps to determine the receptor sensitivity to assess the potential impacts upon it.
20. Sensitivity is defined with regard to the ability of a receptor to adapt to change, tolerate, and/or recover from potential impacts. In addition, for some assessments the value of a receptor may also be an element to add to the assessment where relevant. The sensitivity of human activities to impacts associated with the Bellrock Wind Farm Infrastructure involves consideration of the value (or importance) of the receptor or activity, and the ability of the receptor or activity to accommodate the predicted change. The criteria for defining the sensitivity of a potential impact to commercial fishers is shown in below (**Table 11.3**). Example indicators for sensitivity levels relevant to commercial fisheries are provided in **Table 11.4**.
21. Vulnerability is the susceptibility of a receptor to experience the impact of a change in baseline conditions, e.g.:
  - Very high vulnerability relates to a very high sensitivity: receptor cannot adapt, avoid or tolerate the impact; and
  - Very low vulnerability relates to a negligible sensitivity: receptor is highly likely to recover fully to levels not detectable against baseline.
22. Recoverability is a measure of how well a receptor recovers following exposure to an impact, e.g.:
  - Very low recoverability relates to a very high sensitivity: receptor does not have the ability to recover, or recovery is long-term (e.g. greater than 12 years); and
  - Very high recoverability relates to a negligible sensitivity: receptor is highly likely to recover fully to levels not detectable against baseline.

**Table 11.3: Definition of Sensitivity Levels for Commercial Fisheries Receptors**

Sensitivity	Definition
High	<ul style="list-style-type: none"> <li>▪ Receptor is highly vulnerable to impacts that may arise from the Bellrock Wind Farm Infrastructure and recoverability is long term or not possible.</li> </ul> And/or: <ul style="list-style-type: none"> <li>▪ No alternative fishing grounds are available.</li> </ul>
Medium	<ul style="list-style-type: none"> <li>▪ Receptor is somewhat vulnerable to impacts that may arise from the Bellrock Wind Farm Infrastructure and has moderate levels of recoverability.</li> </ul> And/or: <ul style="list-style-type: none"> <li>▪ Moderate levels of alternative fishing grounds are available and/or fishing fleet has moderate operational range.</li> </ul>

Sensitivity	Definition
Low	<ul style="list-style-type: none"> <li>▪ Receptor is not generally vulnerable to impacts that may arise from the Bellrock Wind Farm Infrastructure and/or has high recoverability.</li> </ul> <p>And/or:</p> <ul style="list-style-type: none"> <li>▪ High levels of alternative fishing grounds are available and/or fishing fleet has large to extensive operational range; fishing fleet is adaptive and resilient to change.</li> </ul>
Negligible	<ul style="list-style-type: none"> <li>▪ Receptor is not vulnerable to impacts that may arise from the Bellrock Wind Farm Infrastructure and/or has high recoverability.</li> </ul> <p>And/or:</p> <ul style="list-style-type: none"> <li>▪ Extensive alternative fishing grounds available and/or fishing fleet is highly adaptive and resilient to change.</li> </ul>

**Table 11.4: Example Indicators for Sensitivity Levels for Commercial Fisheries**

Value	Definition
High	<ul style="list-style-type: none"> <li>▪ Area within the WFDA represents core or primary fishing ground;</li> <li>▪ Gear types/location highly specific with no feasible alternatives;</li> <li>▪ Economic dependency on affected activity; and</li> <li>▪ Long-term or permanent loss anticipated.</li> </ul>
Medium	<ul style="list-style-type: none"> <li>▪ Affected grounds within the WFDA contribute materially to seasonal activity in terms of availability of grounds targeted;</li> <li>▪ Some difficulty relocating effort without displacement or loss; and</li> <li>▪ Limited spatial mobility or operational constraints (e.g. gear type, vessel size).</li> </ul>
Low	<ul style="list-style-type: none"> <li>▪ Area within the WFDA is not delineated or recognised as a regular fishing ground and accounts for only a small proportion of fleet effort;</li> <li>▪ Similar grounds are accessible within normal operational range; and</li> <li>▪ Flexible gear use or target species.</li> </ul>
Negligible	<ul style="list-style-type: none"> <li>▪ No reliance on affected grounds;</li> <li>▪ Vessel(s) operate across multiple regions or grounds; and</li> <li>▪ Impacts are spatially or temporally insignificant to operations.</li> </ul>

23. The magnitude and probability of an impact occurring is established through consideration of:
- Scale or spatial extent (small scale to large scale or a few individuals to most of the population);
  - Duration (short term to long term);
  - Likelihood of impact occurring;
  - Frequency; and
  - Nature of change relative to the baseline.

24. Definitions of the magnitude levels are given in **Table 11.5**. Example indicators of the magnitude levels relevant to commercial fisheries are given in **Table 11.6**.

**Table 11.5: Definition of the Magnitude Levels for a Commercial Fisheries Receptor**

Magnitude	Definition
High	<p>Impact is expected to result in one or more of the following:</p> <ul style="list-style-type: none"> <li>▪ Substantial loss of target fish or shellfish biological resource (e.g. loss of substantial proportion of resource within the local or regional study area (depending on the operational range of the fishery)); and</li> <li>▪ Substantial loss of ability to carry on fishing activities (e.g. substantial loss of effort within the local or regional study area (depending on the operational range of the fishery));</li> </ul> <p>And/or</p> <ul style="list-style-type: none"> <li>▪ Impact is of long-term duration (e.g. greater than 12 years duration) and/or is of extended physical extent.</li> </ul>
Medium	<p>Impact is expected to result in one or more of the following:</p> <ul style="list-style-type: none"> <li>▪ Partial loss of target fish or shellfish biological resource (e.g. moderate loss of resource within the local or regional study area (depending on the operational range of the fishery)); and</li> <li>▪ Partial loss of ability to carry on fishing activities (e.g. moderate loss of effort within the local or regional study area (depending on the operational range of the fishery)).</li> </ul> <p>And/or:</p> <ul style="list-style-type: none"> <li>▪ Impact is of medium-term duration (e.g. less than 12 years but greater than 2 years) and/or is of moderate physical extent.</li> </ul>
Low	<p>Impact is expected to result in one or more of the following:</p> <ul style="list-style-type: none"> <li>▪ Minor loss of target fish or shellfish biological resource (e.g. minor loss of resource within the local or regional study area (depending on the operational range of the fishery)); and</li> <li>▪ Minor loss of ability to carry on fishing activities (e.g. minor loss of effort within the local or regional study area (depending on the operational range of the fishery)).</li> </ul> <p>And/or:</p> <ul style="list-style-type: none"> <li>▪ Impact is of short-term duration (e.g. less than 2 years but greater than 1 year) and/or is of limited physical extent. The short-term time period is based on professional judgement and is not definitive dependent on the nature of the impact.</li> </ul>
Negligible	<p>Fishing activity absent or minimal within affected area (as evidenced by baseline data and corroborated through industry consultation).</p> <p>And/or:</p> <p>Impact is expected to result in one or more of the following:</p> <ul style="list-style-type: none"> <li>▪ Slight loss of target fish or shellfish biological resource (e.g. slight loss of resource within the local or regional study area (depending on the operational range of the fishery)); and</li> <li>▪ Slight loss of ability to carry on fishing activities (e.g. slight loss of fishing effort within effort within the local or regional study area (depending on the operational range of the fishery)).</li> </ul> <p>And/or:</p>

Magnitude	Definition
	<ul style="list-style-type: none"> <li>Impact is of very short-term duration (e.g. less than 1 year) and/or physical extent of impact is negligible and broadly undetectable from pre-development baseline conditions.</li> </ul>
No change	No measurable or discernible change from baseline conditions. The impact does not result in any alternation to the receptor.

**Table 11.6: Example Indicators for Magnitude Levels for Commercial Fisheries**

Magnitude	Example Indicators
High	<ul style="list-style-type: none"> <li>Affected area within WFDA represents core or critical fishing ground in terms of value;</li> <li>High importance/value of area within WFDA confirmed through data and consultation; and</li> <li>Long-term or permanent loss anticipated.</li> </ul>
Medium	<ul style="list-style-type: none"> <li>Area within WFDA contribute appreciably to seasonal or annual income in terms of value;</li> <li>Evidence of displacement pressures (e.g. competition, increased pressure on remaining grounds, gear conflict); and</li> <li>Evidence, including from consultation, indicates moderate reliance or operational challenge in adapting to loss of grounds within WFDA.</li> </ul>
Low	<ul style="list-style-type: none"> <li>Affected grounds form a small portion of annual activity;</li> <li>Consultation indicates low economic or operational dependence; and</li> <li>Displacement or resource loss can be offset within normal operating range.</li> </ul>
Negligible	<ul style="list-style-type: none"> <li>Very low or no fishing activity recorded in the area;</li> <li>Industry consultation confirms negligible operational reliance; and</li> <li>Any effect is short-lived and easily absorbed.</li> </ul>
No change	<ul style="list-style-type: none"> <li>No spatial or temporal overlap with fishing activity;</li> <li>No interaction with fishing operations, gear, or target species; and</li> <li>No requirement for fishers to alter established fishing patterns, access, or activity.</li> </ul>

25. The EIA Regulations and associated guidance recognise the importance of defining the duration of impacts, through terms like "long-term," "medium-term," and "short-term" and these durations can vary based on context and sector, such as in commercial fisheries. While there is no universally standardised definition of these terms, general guidelines can inform their appropriate use. For context, the European Union (EU) EIA Directive (2011/92/EU) and related regulations focus more on assessing the significance of effects rather than rigidly defining timeframes, but they emphasize the need for a comprehensive analysis of effects over different temporal scales. Similarly, the International Energy Agency (IEA, 2023) and UK EIA guidelines (IEMA, 2004) recommend considering the temporal relevance of impacts in relation to a project's lifecycle.

26. In relation to commercial fisheries, the following timeframes are considered appropriate to the Bellrock Wind Farm Infrastructure:
- Short-term:
    - These are typically impacts that last for a relatively brief period, often in the range of 1 – 2 years; and
    - Short-term impacts generally refer to temporary changes that are expected to reverse quickly once the disturbance has ceased. This timeframe is consistent with the natural recovery cycles of many environmental systems.
  - Medium-term:
    - Medium-term impacts are often those expected to last several years but not beyond 12 years; and
    - The recovery or restoration of affected systems might take this amount of time, especially when it comes to ecosystems or species that require longer periods to recover or regenerate.
  - Long-term:
    - Long-term impacts typically extend beyond 12 years and could be permanent or only partially reversible within the human timescale; and
    - Long-term impacts could involve major habitat changes, loss of biodiversity, or irreversible degradation of fisheries resources, which may take decades or longer to recover, if they recover at all.
27. The assessment of the displacement impacts has been undertaken with due regard to Scottish Government and Xodus (Scottish Government, 2022) guidelines in defining the magnitude of impact to each receptor group and sensitivity of each commercial fishing fleet. The displacement considers both primary and secondary displacement, defined as follows (Scottish Government, 2022):
- Primary displacement refers to the first instance of displacement where fishing effort is relocated to another area as a result of a change in the spatial environment. This corresponds to displacement that is a direct result of other licensed marine activities and associated infrastructure; and
  - Secondary displacement refers to the indirect effect of the other licensed marine activity and associated infrastructure. This occurs when the fishing effort that is relocated through primary displacement also displaces other fishing effort.
28. The guidance provides details on baseline data sources, highlighting that no single source of data can be used to comprehensively describe commercial fishing activity, due to the inherent limitations of each data source. Data sources are detailed in **Section 11.5.2**, together with associated limitations and uncertainties.

29. The guidance specifically recommends the following steps (Scottish Government, 2022):
- Clear understanding of the commercial fishing 'receptors' for which impacts will be assessed, the fishing methods which are operated in the study area (in this case the commercial fisheries regional and local study areas), including the areas where fishing activity may be relocated;
  - Identification of the likely maximum distance of displacement by the receptors, and the potential spatial extent of displacement effects for the fishing vessels which are already operational in the area which vessels are displaced to;
  - Identification of potential impacts on displaced commercial fisheries from the area that vessels are initially displaced from;
  - Identification of potential impacts on any fishing vessel operators/owners which are already active in the area in which vessels are displaced to and the potential for competition for space;
  - Establishing the sensitivity of each commercial fisheries receptor to displacement, with reference to the specifications;
  - If possible, a quantitative assessment of magnitude (e.g. taking account of spatial extent, duration, fishing effort, number of vessels); and
  - Consideration of primary and secondary displacement where applicable.
30. Conflict over diminished grounds may occur if displaced vessels explore grounds traditionally fished by other gear types; and/or displaced vessels relocate to actively fished grounds already targeted by the same gear. For example, this could include displaced demersal otter trawlers exploring areas fished by potters and thereby causing gear conflict or gear entanglement between potting lines and trawl gear and/or displaced demersal otter trawlers focusing effort in areas already fished by demersal otter trawlers and therefore increasing competition in that area. The impact is predicted to be of regional spatial extent, mid-term duration and continuous throughout the construction phase.

#### 11.4.1.2 Effect Significance

31. The potential significance of effect for a given impact, is a function of the overall sensitivity and the magnitude of the impact (see **Chapter 5: Environmental Impact Assessment Methodology (Volume II)** for further details). A matrix is used (**Table 11.7**) as a framework to determine the significance of an effect.
32. Definitions of each level of significance are provided in **Table 11.8**. Impacts and effects may be either positive (beneficial) or negative (adverse). Impacts that are moderate or major adverse are considered to be significant in EIA terms.

**Table 11.7: Matrix for Evaluating the Significance of an Effect**

Sensitivity	Magnitude				
	High	Medium	Low	Negligible	No Change
High	Major	Major	Moderate	Minor	No effect
Medium	Major	Moderate	Minor	Negligible	No effect
Low	Moderate	Minor	Minor	Negligible	No effect
Negligible	Minor	Negligible	Negligible	Negligible	No effect

**Table 11.8: Definitions of Effect Significance**

Effect Significance	Definition
Major	Very large or large change in receptor condition or very large or large disturbance to an activity, both adverse or beneficial, which are likely to be important considerations at a regional or national level because they contribute to achieving national, regional or local objectives, or could result in exceedance of statutory objectives and/or breaches of legislation.
Moderate	Intermediate change in receptor condition or intermediate disturbance to an activity, which are likely to be important considerations at a local level.
Minor	Small change in receptor condition or small disturbance to an activity, which may be raised as local issues but are unlikely to be important in the decision-making process.
Negligible	No discernible change in receptor condition or disturbance to activity.
No Effect	No impact, therefore, no change in receptor condition or activity.

## 11.4.2 Cumulative Effects Assessment Methodology

33. The Cumulative Effects Assessment (CEA) considered the likely significant effects of impacts arising from the activities and infrastructure associated with the Bellrock Wind Farm Infrastructure cumulatively with other relevant plans, projects and activities. The general approach to the CEA for commercial fisheries included identifying potential cumulative effects, identifying a short list of plans and projects for consideration and evaluating the significance of cumulative effects. **Chapter 5: Environmental Impact Assessment Methodology (Volume II)** provides further details on the general approach to the CEA, including the CEA with the Bellrock Offshore Transmission Development Area (OfTDA) and Onshore Transmission Development Area (OnTDA).
34. Potential cumulative plans and projects were identified and screened in **Appendix 5.3: CEA Long List of Projects (Volume IV)**. Those which have been subsequently scoped into the CEA for commercial fisheries are outlined in **Table 11.15** and presented in **Figure 11.3 (Volume III)**. Given that there is no potential pathway for impact to commercial fisheries due to the proposed Bellrock Onshore Transmission Infrastructure, and therefore no potential for likely significant effects from

those works on commercial fisheries, the Bellrock Onshore Transmission Development Area has not been considered further within the CEA.

35. The proposed Offshore Transmission Infrastructure will be located within the Proposed Bellrock OfTDA and is assessed within the CEA because of potential receptor impact pathways. As the OfTDA boundary overlaps with the Bellrock WFDA, the likely significant effects of the Bellrock Wind Farm Infrastructure together with the Bellrock Offshore Transmission Infrastructure within the overlapping area, so far as these can be ascertained at this stage, are assessed within the Bellrock WFDA EIA Report.
36. In line with the methodology set out in **Chapter 5: Environmental Impact Assessment Methodology (Volume II)**, three tiers have been applied to the CEA for the Bellrock Wind Farm Infrastructure. As the site selection process for the Bellrock OfTDA is ongoing (see **Chapter 4: Project Description (Volume II)** for details), activities and infrastructure associated with the Bellrock OfTDA will be treated as 'other projects' for the purposes of the CEA but have been considered within 'Tier 1' where relevant, due to their essential requirement for the function of the Bellrock Project. The Bellrock Onshore Transmission Development Area is not considered within this assessment due to being onshore.
37. The three tiers for CEA are:
- Tier 1 assessment: The Bellrock WFDA plus plans/projects which are operational, under construction, those with consent or a consent application submitted but not yet determined, plus the Bellrock OfTDA and Bellrock OnTDA;
  - Tier 2 assessment: The Bellrock WFDA plus all plans/projects assessed under Tier 1, plus projects with a Scoping Report and/or Scoping Opinion; and
  - Tier 3 assessment: The Bellrock WFDA plus all plans/projects assessed under Tier 1 and Tier 2, plus those projects likely to come forward where a Crown Estate Scotland Option to Lease Agreement or equivalent has been granted.

### 11.4.3 Transboundary Effects Assessment Methodology

38. The transboundary effects assessment considers the potential for effects to occur as a result of the Bellrock Wind Farm Infrastructure on commercial fisheries within the Exclusive Economic Zone (EEZ) of other European Economic Area (EEA) member states or other interests of EEA member states.

## 11.5 Scope of the Assessment

### 11.5.1 Study Area

39. The Bellrock WFDA is located within the northern portion of the International Council for the Exploration of the Seas (ICES) Division 4b (central North Sea) statistical area; within UK EEZ waters. For the purpose of recording commercial fisheries landings, ICES Division 4b is divided into statistical rectangles of which the Bellrock WFDA overlaps with 42E9 and 42F0. For the purposes of the EIA, the commercial fisheries local study area comprises these two ICES rectangles.
40. To understand fishing activity in waters adjacent to the Bellrock WFDA, a commercial fisheries regional study area has been defined to include the commercial fisheries local study area together with the surrounding 10 ICES rectangles. Analysis of data at the scale of the commercial fisheries regional study area takes into consideration that most commercial fish and shellfish receptor populations are distributed at a wider spatial scale, ensuring that potential implications of displacement of fishing activity can be adequately understood.
41. To summarise, there are two scales of commercial fisheries study areas – both shown in **Figure 11.1** in **Appendix 11.1: Commercial Fisheries Baseline Report (Volume IV)**, as follows (and collectively referred to as the commercial fisheries study areas):
  - Commercial fisheries local study area: 42E9 and 42F0; and
  - Commercial fisheries regional study area: 41E8 – 41F1, 42E8 – 42F1 and 43E8 – 43F1.

### 11.5.2 Data and Information Sources

42. Commercial fisheries information and data have been reviewed and analysed to inform this commercial fisheries baseline. In addition, consultation with commercial fisheries industry representatives has been carried out to aid the collection of baseline information (see **Table 11.2**).
43. For the purposes of this Chapter, a desk-based review was undertaken using relevant spatial and scientific data sources.
44. **Table 11.9** sets out the key desk-based information and data sources that have been used to inform the commercial fisheries baseline.
45. Data has been sourced from ICES, the EU Data Collection Framework (2023), the Marine Directorate National Marine Plan interactive (NMPi), the UK Marine Management Organisation (MMO) and the European Maritime Safety Agency).
46. Where data sources allow, a five to ten-year (or longer) trend analysis has been undertaken, using the most recent annual datasets available at the time of writing. The temporal extent of this time period is dependent on each data source analysed, e.g. 2012 to 2016; 2016 to 2020; or 2011 to 2023.

47. Relevant literature from several sources has also been reviewed in the preparation of this report. A full list of references is provided at the end of this report and are cited within the text where appropriate.
48. The **Commercial Fisheries Baseline Report (Appendix 11.1 (Volume IV))** includes full details of the analysis undertaken to develop the commercial fisheries baseline.

**Table 11.9: Key Data and Information Sources for Commercial Fisheries**

Dataset	Year(s)	Description
MMO, 2022a; MMO, 2024a	2011 - 2023	Landings statistics data for UK-registered vessels, with data query attributes for: landing year; landing month; vessel length category; ICES rectangle; vessel/gear type; port of landing; species; live weight (tonnes); and value (£).
MMO, 2022b	2016 - 2020	VMS data for UK registered vessels $\geq 15$ m length. Note that UK vessels $\geq 12$ m in length have VMS on board, however, to date, the MMO provide amalgamated VMS datasets for $\geq 15$ m vessels only. VMS data sourced from MMO displays the first sales value (£) of catches.
European Maritime Safety Agency, 2024	2019 - 2023	Fishing vessel route density, based on vessel AIS positional data. AIS is required to be fitted on fishing vessels $\geq 15$ m length.
Marine Directorate, 2025	2017 - 2021	Scottish fishing vessel VMS data indicating fishing intensity by gear type.
Marine Scotland MAPS NMPi, 2024	2009 - 2013	NMPi (various publication dates) Marine Scotland MAPS NMPi (2023) fisheries datasets.
Scottish Government, 2020	N/A	Sectoral Marine Plan, including description of regional commercial fisheries activity.
SPFA, 2024a	2013 - 2021	SPFA VMS data for Scottish pelagic trawl member vessels for 2013-2021.
SPFA, 2024b	2013 - 2021	SPFA plotter data for Scottish pelagic trawl member vessels indicating location of fishing.
Cefas, 2025	2012 - 2021	Fisheries Sensitivity Mapping and Displacement Modelling of AIS and VMS data to indicate fishing effort (hours) number of vessels and sensitivity index for period 2012-2021.
Marine Directorate, 2023	2017 - 2022	Surveillance data indicating vessel nationality and gear type for actively fishing vessels.
SFF, 2025	Unknown	SFF vessel plotter data indicating location of fishing. [Confidential]
SWFPA, 2025	Unknown	SWFPA vessel plotter data indicating location of fishing. [Confidential]
Norwegian Directorate of Fisheries, 2025	2011 - 2024	Statistikkomrader. Norwegian long term VMS data for Norwegian vessels.

### 11.5.2.1 Site-specific Surveys

49. Vessel traffic (AIS and radar) survey data has been collated across summer and winter periods of 14 days each. This data covered fishing vessels in transit. Baseline data sources have been validated via engagement with fisheries stakeholders and by the results of site-specific summer vessel traffic surveys undertaken in summer 2023 and summer 2024 as described in **Chapter 12: Shipping and Navigation (Volume II)**.

### 11.5.2.2 Assumptions and Limitations

50. The commercial fisheries baseline for the Bellrock WFDA is informed by multiple datasets, each with inherent limitations and varying levels of confidence. Key constraints relate to the spatial resolution of landings data, which are reported by ICES rectangle and may not accurately reflect fishing activity at a local scale. Baseline landings are further influenced by external factors, notably the Covid-19 pandemic, which significantly disrupted fishing effort and markets, resulting in atypical landings trends that must be interpreted with caution.
51. While UK landings data are generally robust due to Register of Buyers and Sellers legislation, uncertainty remains for vessels under 10 m, particularly regarding gear type and fishing location, which are often supplemented using local knowledge. For EU fleets, recent landings data at ICES rectangle level are no longer available, reducing spatial accuracy. VMS and AIS datasets provide valuable positional insight but are limited to vessels over 12 – 15 m, resulting in potential under-representation of inshore fleets. To address this gap, surveillance and plotter data have been used, although these sources provide only snapshot observations and are not designed for comprehensive activity monitoring.
52. Overall, confidence in datasets varies from high (e.g. MMO landings, AIS traffic data) to medium or low (e.g. inshore positional data, small vessel activity). These limitations are acknowledged and accounted for in the assessment, with expert judgement applied to interpret datasets appropriately within the EIA.
53. Data limitations are discussed further in Section 3.3 of **Appendix 11.1: Commercial Fisheries Baseline Report (Volume IV)**, where the level of uncertainty and confidence of each data set is also defined.

## 11.6 Existing Environment

54. A summary of the commercial fisheries existing environment is provided in the following sections. Full details of the analysis undertaken to develop the commercial fisheries baseline is provided in **Appendix 11.1: Commercial Fisheries Baseline Report (Volume IV)**.

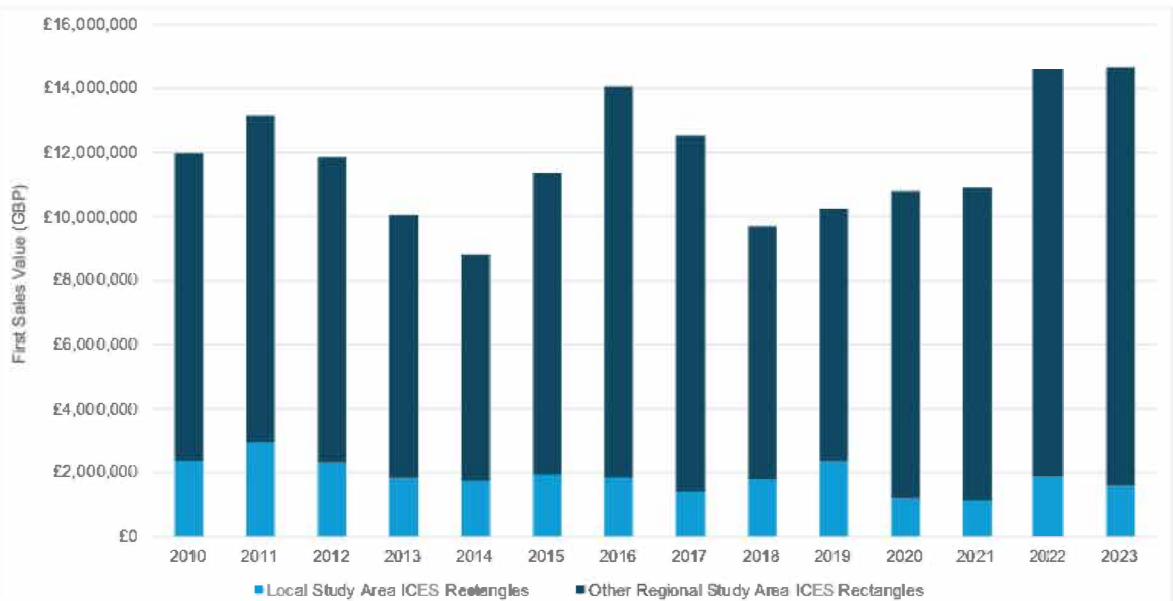
### 11.6.1 Overview of Landings

55. Landings over the period 2010 to 2023 are presented in **Appendix 11.1: Commercial Fisheries Baseline Report (Volume IV)**. For the purposes of this summary of the baseline description, focus is given to the most recent datasets across a five-year period (2019 - 2023), with context for longer-term trends provided where relevant.

56. On average, £1.6 million in first sales value is landed from the commercial fisheries local study area, based on 5-years from 2019 to 2023. Peak landings occurred in 2023 at a value of £2.4 million. The average annual value landed from the commercial fisheries regional study area is £12.2 million, peaking in 2023 at £14.7 million (MMO, 2024a).

57. **Plate 11.1** (MMO, 2024) presents the annual first sales value of landings (in Great British Pounds) from ICES rectangles within the commercial fisheries study areas, covering the period from 2010 to 2023. Across the full timeline, the total first sales value demonstrates natural interannual variability but remains broadly stable, fluctuating between approximately £10 million and £15 million. The commercial fisheries local study area consistently contributes a smaller share compared to other areas within the wider commercial fisheries regional study area, indicating that most economic activity is generated by fleets operating more extensively across the region rather than solely within the immediate vicinity of the commercial fisheries local study area.

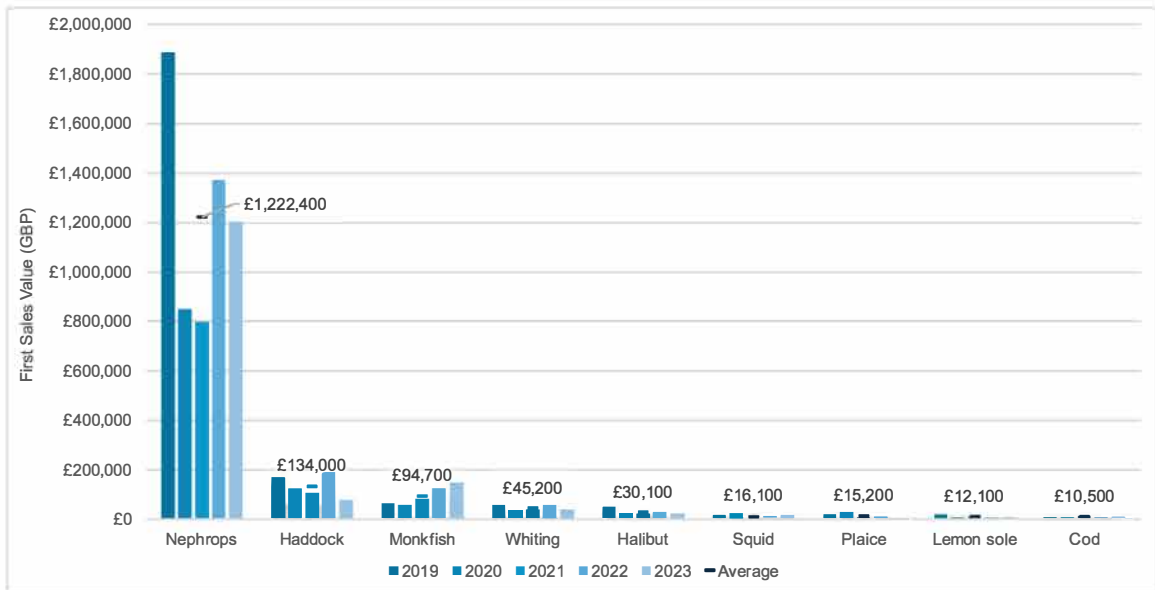
**Plate 11.1: Annual Landed Value from the Commercial Fisheries Regional Study Area (blue + navy), including Landings from the Local Study Area (blue) and other ICES Rectangles within the Regional Study Area (navy only)**



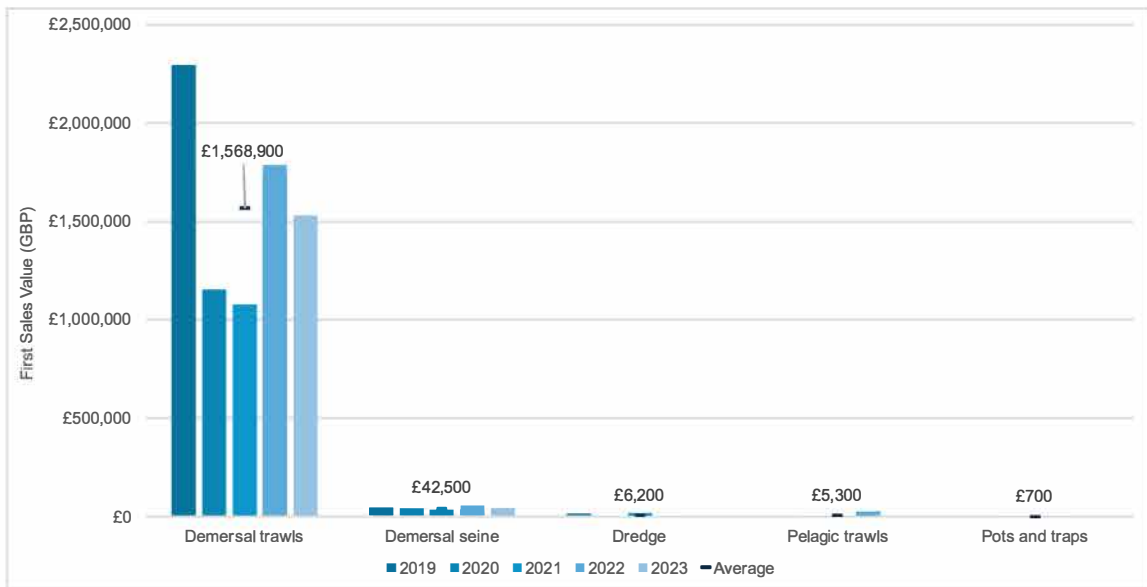
58. The key species landed from the commercial fisheries local study area is Nephrops (also known as Norway lobster, langoustine or prawn, hereon referred to as Nephrops), with an average annual first sales value of £1.2 million (from 2019-2023). A pronounced peak is noticeable in 2019 landings which reached £1.9 million in value. Other commercial important species include haddock, monkfish, whiting and halibut, with a combined average annual first sales value of £304,000 (**Plate 11.2** (MMO, 2024)). In the wider commercial fisheries regional study area, landings are dominated by similar species to those in the commercial fisheries local study area where landings of herring, king scallop, brown crab and lobster feature more prominently.

59. Landed value by gear type for the commercial fisheries local study area is shown in **Plate 11.3** (MMO, 2024). Landings are primarily associated with demersal otter trawls, with small quantities taken by demersal seine, dredge, pelagic trawl and pots and traps.

**Plate 11.2: Average Annual Landed Value of Key Species from the Commercial Fisheries Local Study Area, Based on 5-year Average from 2019 to 2023**



**Plate 11.3: Average Annual Landed Value (£) by Gear Type from the Commercial Fisheries Local Study Area, Based on 5-year Average from 2019 to 2023**



## 11.6.2 Fishing Activity by Fleet

### 11.6.2.1 UK Demersal Otter Trawl Fisheries

60. The demersal otter trawl fishery targets two distinct fisheries:
- Haddock, whiting and mixed finfish species: using  $\geq 100$  mm mesh gear (referred to as TR1 gear), deployed for mixed demersal fisheries such as haddock, whiting and other finfish, with Nephrops often taken as bycatch; and
  - Nephrops: using 70 – 99 mm mesh gear (referred to as TR2 gear), designed to retain Nephrops while incorporating selectivity measures to reduce finfish bycatch.
61. The demersal otter trawl fisheries account for £1.6 million first sales value landed annually from the commercial fisheries local study area. In the context of total landings from the commercial fisheries local study area, the demersal otter trawl fisheries account for 97% of the landed value.
62. Nephrops are primarily targeted in ICES rectangle 42F0 with numerous discrete fishing grounds throughout 42F0 (and the adjacent 42F1 and 41F1 which form part of the commercial fisheries local study area). The Bellrock WFDA overlaps with ICES rectangle 42F0. The Nephrops fishery accounts for 78% of the total value of landings associated with the demersal otter trawl fishery in the commercial fisheries local study area and 54% of the total value of landings associated with the demersal otter trawl fishery in the commercial fisheries regional study area. Consultation with fishing industry stakeholders confirms a small portion of the Bellrock WFDA in the eastern section is targeted by the Nephrops fishery. **Figure 11.1 (Volume III)** shows the extent of the Devil's Hole Nephrops grounds relative to the commercial fisheries local study area, commercial fisheries regional study area and the Bellrock WFDA.
63. This area is targeted as part of the wider Devil's Hole Nephrops grounds (ICES Functional Unit 34). The Devil's Hole is a cluster of steep-sided, mud-floored trenches in the central North Sea c. 200 km east of Dundee) where water depths reach ~230 m, contrasting with surrounding ~80 – 90 m water depth. The trenches run broadly north-south and are narrow/elongate, creating discrete patches of fine mud that support burrow-forming Nephrops. The Nephrops fishery here is prosecuted mainly by demersal otter trawlers using 70 – 99 mm mesh (TR2) with selectivity devices; effort is typically spatially concentrated along trench flanks and floors.
64. Spatial data for demersal otter trawl and demersal seine activity (**Section 11.6.2.2**) is presented in **Appendix 11.1: Commercial Fisheries Baseline Report (Volume IV)**. It indicates that demersal otter trawling takes in north-south channels following the deep trenches of the Devil's Hole throughout ICES rectangle 42F0 and entering the east portion of Bellrock WFDA.
65. Lower levels of activity for demersal otter trawl are present throughout the remaining Bellrock WFDA. Landings by demersal otter trawl peak in summer months and are landed into Fraserburgh and Peterhead.

### 11.6.2.2 UK Demersal Seine Fishery

66. Demersal seine gear is used to target similar species assemblage as demersal otter trawl TR1 gear.
67. Levels of demersal seine activity within the Bellrock WFDA are relatively low, compared to areas north and south of the commercial fisheries local study area.

### 11.6.2.3 UK Pelagic Trawl and Purse Seine Fishery

68. The pelagic trawl and purse seine fishery primarily targets herring with fishing activity only taking place in August and September each year. Activity is sporadic, with relatively small quantities landed (e.g. £26,000 during 2022). The pelagic fleet includes both pelagic trawl and purse seine nets. Spatial data indicates limited overlap of pelagic trawl activity within the Bellrock WFDA, as confirmed by SPFA during consultation (see **Table 11.2**).

### 11.6.2.4 UK Potting Fishery

69. The potting fishery primarily targets brown crab and lobster and is typically focused to inshore waters, west of the Bellrock WFDA. Landings data indicate a low value from the commercial fisheries local study area of £3,000 landed in 2021 and no landings in other years during 2019 – 2023.
70. Offshore areas are becoming increasingly important to vivier crabbers for exploratory fishing due to recent restrictions in the inshore areas which apply out to 6 nm.

### 11.6.2.5 UK Scallop Dredge Fishery

71. Very limited scallop dredge activity occurs across the commercial fisheries local study area. The scallop dredge fishery accounts for £6,000 first sales value landed annually on average from the commercial fisheries local study area. Spatial mapping of dredge activity shows no effort within the Bellrock WFDA.

## 11.6.3 Key Commercial Fisheries Receptors

72. The key fishing fleets operating across the commercial fisheries local and regional study areas are listed in **Table 11.10**.

**Table 11.10: Summary of Fishing Fleets Active in the Commercial Fisheries Local and Regional Study Areas, and Identified as Commercial Fisheries EIA Receptors**

Fishing Fleet	Target Species	Bellrock WFDA
UK demersal otter trawl	Nephrops, haddock, monkfish, turbot, whiting and mixed demersal species	<p>Primarily Scottish registered vessels, over 15 m length targeting Nephrops – distinct area of activity in east Bellrock WFDA.</p> <p>Demersal fish species - low activity noted throughout Bellrock WFDA.</p> <p>Demersal otter trawl fleets operate two distinct sets of gear: TR1 (mesh size <math>\geq 100</math> mm) and TR2 (mesh size 70-99 mm). Both gear types and targeted fisheries are included in this receptor.</p>

<b>Fishing Fleet</b>	<b>Target Species</b>	<b>Bellrock WFDA</b>
UK demersal seine	Haddock and whiting	Scottish registered vessels, over 15 m length – low levels of activity.
UK pelagic trawl and pelagic seine	Mackerel and herring	Scottish and English registered vessels, over 40 m length with low levels of activity.
Non-UK pelagic trawl and purse seine	Mackerel and herring	Sporadic activity by vessels registered in Norway, Denmark, the Netherlands, Germany, France, Lithuania and Sweden.
UK scallop dredge	King scallop	No notable activity within the Bellrock WFDA, but active in the commercial fisheries regional study area.
UK beam trawl	Flatfish species	No notable activity within the Bellrock WFDA, but active in the commercial fisheries regional study area.
UK potting	Brown crabs, lobsters and velvet crabs	Scottish registered vessels, over 10 m length working across offshore grounds.
UK gear with hooks	Mackerel	No notable activity within the Bellrock WFDA, but active in the commercial fisheries regional study area.

### 11.6.4 Predicted Future Baseline

73. In line with the EIA regulations, the EIA requires a description of the relevant aspects of the current state of the environment (baseline scenario) and an outline of the likely evolution thereof without implementation of the Bellrock Wind Farm Infrastructure as far as natural changes from the baseline scenario can be assessed with reasonable effort, on the basis of the availability of environmental information and scientific knowledge. This reflects how the baseline relevant to commercial fisheries is expected to evolve without the Bellrock Wind Farm Infrastructure.
74. Commercial fisheries patterns change and fluctuate based on a range of natural and management-controlled factors. These factors include the following:
- **Market demand:** Commercial fishing fleets respond to market demand, which is impacted by a range of factors, including the 2020 to 2021 COVID-19 pandemic;
  - **Market prices:** Commercial fishing fleets respond to market prices by focusing effort on higher value target species when prices are high and markets are in demand;
  - **Stock abundance:** Fluctuation in the biomass of individual species stocks in response to the status of the stock, recruitment, natural disturbances (e.g. due to storms, sea temperature etc.), and changes in fishing pressure etc.
  - **Fisheries management:** Including new management for specific species where overexploitation has been identified, or changes in total allowable catch leading to the relocation of effort, and/or an overall increase/decrease of effort and catches from specific areas;
  - **Environmental management:** Including the potential restriction of certain fisheries within protected areas;

- Improved efficiency and gear technology: With fishing fleets constantly evolving to reduce operational costs, e.g. by moving from beam trawl to demersal seine;
- Sustainability: With seafood buyers more frequently requesting certification of the sustainability of fish and shellfish products, such as the Marine Stewardship Council certification, industry is adapting to improve fisheries management and wider environmental impacts;
- Fleet size: Based on the combination of the above factors, the fleet size (i.e. number of vessels and overall capacity) of the UK fishing sector may change, including increases in response to positive changes and decreases in response to negative changes;
- Other marine infrastructure and spatial pressures: Increasing competition for sea space from multiple offshore developments, including offshore wind farms, subsea cables and other marine industries, can restrict access to traditional fishing grounds. This marine spatial conflict may displace fishing activity, alter fishing patterns, and increase operational costs as vessels adapt to avoid infrastructure or navigate more congested areas; and
- Climate change: Climate change predictions are set out in **Chapter 18: Climate Change Risk (Volume II)** and details of predicted changes to fish and shellfish abundance and distribution as a result of climate change are detailed in **Chapter 8: Fish and Shellfish Ecology (Volume II)**.

## 11.7 Potential Impacts

### 11.7.1 Scope

75. **Table 11.11** sets out the impacts that have been scoped in and out of the Bellrock WFDA EIA Report, in line with the Scoping Opinion (**Appendix 1.2: Bellrock WFDA Scoping Opinion (Volume IV)**).

**Table 11.11: Potential Impacts Scoped In and Scoped Out of the EIA for Commercial Fisheries as Confirmed in the Bellrock WFDA Scoping Opinion**

Potential Impact	Construction	Operation and Maintenance	Decommissioning
	Advised within the Bellrock WFDA Scoping Opinion		
Reduction in access to, or exclusion from established fishing grounds within the WFDA	✓	✓	✓
Displacement leading to gear conflict and increased fishing pressure on adjacent grounds	✓	✓	✓
Disturbance of commercially important fish and shellfish resources leading to displacement or disruption of fishing activity	✓	✓	✓

Potential Impact	Construction	Operation and Maintenance	Decommissioning
	Advised within the Bellrock WFDA Scoping Opinion		
Increased vessel traffic associated with the Bellrock Wind Farm Infrastructure within fishing grounds leading to interference with fishing activity	✓	✓	✓
Additional steaming to alternative fishing grounds for vessels that would otherwise fish within the Bellrock WFDA	✓	✓	✓
Increased snagging risk, which could result in loss or damage to fishing gear	✓	✓	✓
Transboundary impacts	✓	✓	✓

## 11.7.2 Realistic Worst-case Scenario

76. The final design of the Bellrock Wind Farm Infrastructure will be confirmed during detailed engineering studies post-consent. To undertake a robust and precautionary impact assessment, the realistic worst-case design scenario has been defined. Realistic worst-case scenarios (i.e. those that have potential to cause the greatest impact) are derived from the Project Design Envelope to ensure that all other design scenarios would have equal or less impact. Please see **Chapter 5: Environmental Impact Assessment Methodology (Volume II)** for further details on the design envelope approach.
77. The realistic worst-case scenario for the commercial fisheries assessment is summarised in **Table 11.12** below and based on the project design as described in **Chapter 4: Project Description (Volume II)**.

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**Table 11.12: Realistic Worst-case Scenario for Impacts on Commercial Fisheries**

Impact	Realistic Worst-case Scenario	Rationale
<b>Construction</b>		
<p>C1: Reduction in access to, or exclusion from established fishing grounds within the Bellrock WFDA</p>	<p><b>Construction and Area:</b></p> <ul style="list-style-type: none"> <li>▪ Site preparation<sup>1</sup> phase: one year (2030);</li> <li>▪ Construction phase: up to 7 years (2031 to 2037) (excluding the one year of site preparation); and</li> <li>▪ Total Bellrock WFDA size: 280 km<sup>2</sup>.</li> </ul> <p><b>Safety Zones:</b></p> <ul style="list-style-type: none"> <li>▪ Safety Zones for up to 500 m around each FOU during its construction;</li> <li>▪ Safety Zones for up to 50 m around each FOU when construction works have been completed but prior to commissioning, or where construction works are partially completed and a construction vessel is not present; and</li> <li>▪ Up to 500 m rolling advisory zone around cable laying vessel.</li> </ul> <p><b>Seabed Preparation = 797,032 m<sup>2</sup></b></p> <ul style="list-style-type: none"> <li>▪ Maximum footprint area due to boulder clearance = 4,000 m<sup>2</sup>;</li> <li>▪ Maximum footprint area due to sand wave levelling = 420,000 m<sup>2</sup>; and</li> <li>▪ Maximum footprint area due to slope levelling for gravity-based anchors only = 373,032 m<sup>2</sup>.</li> </ul> <p><b>Construction = 2,838,126 m<sup>2</sup></b></p> <p><u>Mooring Lines:</u></p> <ul style="list-style-type: none"> <li>▪ Maximum footprint area due to the pre-lay of mooring lines (including clump weights) on the seabed = 532,224 m<sup>2</sup>.</li> </ul>	<p>The design scenario represents the maximum duration and extent of fishing exclusion throughout the construction phase and, hence, the greatest potential to restrict access to fishing grounds.</p> <p>It is assumed that construction activities could occur anywhere within the Bellrock WFDA at any given time.</p> <p>For the purpose of this assessment, it is assumed that fishing is unlikely to resume within the Bellrock WFDA during construction or operation, due to the presence of mooring lines within the water column, anchors and FSSs deployed throughout the Bellrock WFDA (see O1).</p>

Impact	Realistic Worst-case Scenario	Rationale
	<p><u>Anchors:</u></p> <ul style="list-style-type: none"> <li>▪ Maximum seabed footprint area for all drag embedment anchors (including drag distance of 60 m) = 855,360 m<sup>2</sup>.</li> </ul> <p><u>IACs:</u></p> <ul style="list-style-type: none"> <li>▪ Installation method with the largest seabed footprint area = ploughing.</li> <li>▪ Maximum seabed footprint area of disturbance from ploughing = 1,447,500 m<sup>2</sup>.</li> </ul> <p><u>Subsea Cable Hubs:</u></p> <ul style="list-style-type: none"> <li>▪ Maximum seabed footprint for 18 subsea cable hubs = 3,042 m<sup>2</sup>.</li> </ul>	
<p>C2: Displacement leading to gear conflict and increased fishing pressure on adjacent grounds</p>	<p>As described for C1.</p>	<p>The design scenario represents the maximum duration and extent of fishing exclusion throughout the construction phase and, hence, the greatest potential to lead to displacement of fishing effort.</p>
<p>C3: Disturbance of commercially important fish and shellfish resources leading to displacement or disruption of fishing activity</p>	<p>As described for <b>Chapter 8: Fish and Shellfish Ecology (Volume II)</b>.</p>	<p>The design scenario for fish and shellfish ecology receptors represents the maximum potential disturbance to commercial fisheries resources.</p>
<p>C4: Increased vessel traffic associated with the Bellrock Wind Farm Infrastructure within fishing grounds leading to interference with fishing activity</p>	<ul style="list-style-type: none"> <li>▪ Maximum number of round trips<sup>2</sup> for vessels over the construction (including site preparation) phase = 1,615.</li> <li>▪ Maximum number of vessels on site at one time over the construction (including site preparation phase) = 34.</li> </ul>	<p>The maximum number of WTGs and associated infrastructure will lead to the highest level of construction activities and therefore highest level of construction vessel round trips.</p> <p>The maximum number of vessel transits and the maximum duration of the construction would result in the greatest potential for interference.</p>

Impact	Realistic Worst-case Scenario	Rationale
C5: Additional steaming to alternative fishing grounds for vessels that would otherwise fish within the Bellrock WFDA	As described for C1.	The design scenario represents the maximum duration and extent of fishing exclusion (and thus need for steaming to alternative fishing grounds) throughout the construction phase and, hence, the greatest potential for additional steaming to alternative fishing grounds.
C6: Increased snagging risk, which could result in loss or damage to fishing gear	As described for C1.	The design scenario represents the maximum number and extent of project infrastructure being constructed and, hence, the greatest potential for gear snagging to occur.
<b>Operation and maintenance</b>		
O1: Reduction in access to, or exclusion from established fishing grounds within the WFDA	<p><b>Operational lifetime:</b></p> <ul style="list-style-type: none"> <li>▪ Operational lifetime: up to 35 years.</li> </ul> <p><b>FSSs:</b></p> <ul style="list-style-type: none"> <li>▪ Maximum number of FSSs: 132;</li> <li>▪ FSS surface dimensions: 135 m x 135 m;</li> <li>▪ Draft of FSSs: 30 m; and</li> <li>▪ Minimum FSS spacing: 1,150 m.</li> </ul> <p><b>SKSs:</b></p> <ul style="list-style-type: none"> <li>▪ Total anchor footprint (suction piles): 377,784 m<sup>2</sup>;</li> <li>▪ Maximum number of mooring lines and anchors per FSS, including shared anchor option: 9;</li> <li>▪ Maximum total number of mooring lines and anchors: 1,188; and</li> <li>▪ Mooring line radius: 1,300 m from the FSS.</li> </ul> <p><b>Inter-array Cables<sup>3</sup>:</b></p> <ul style="list-style-type: none"> <li>▪ Maximum IAC length: 300 km;</li> </ul>	<p>The design scenario represents the maximum duration and extent of fishing exclusion throughout the O&amp;M phase and hence the greatest potential to restrict access to fishing grounds.</p> <p>Given the mooring line radius of up to 1,300 m from foundation and minimum turbine spacing of 1,150 m, it is assumed that fishing is not prohibited on completion of construction but is unlikely to resume within the Bellrock WFDA throughout the O&amp;M phase.</p>

Impact	Realistic Worst-case Scenario	Rationale
	<ul style="list-style-type: none"> <li>▪ Maximum IAC length to be buried: 225 km;</li> <li>▪ Maximum length of IAC that may require protection: 26.2 km;</li> <li>▪ Maximum length of dynamic IAC: 92.4 km; and</li> <li>▪ Maximum volume of dynamic IACs in the water column: 5,290 m<sup>3</sup>.</li> </ul> <p><b>Cable Protection:</b></p> <ul style="list-style-type: none"> <li>▪ Cable protection material: concrete mattresses, rock placement (berm or rock bags), grout bags, and cast-iron shells (articulated pipes);</li> <li>▪ Maximum total volume of cable protection: 58,730 m<sup>3</sup>; and</li> <li>▪ Total volume of IAC crossing protection: 417 m<sup>3</sup>.</li> </ul> <p><b>Scour Protection:</b></p> <ul style="list-style-type: none"> <li>▪ Scour protection material: concrete mattresses, graded rock placement, rock bags, and artificial frond mats; and</li> <li>▪ Scour protection footprint for Bellrock WFDA (anchors): 2,418,768 m<sup>2</sup>.</li> </ul> <p><b>Mooring Buoys:</b></p> <ul style="list-style-type: none"> <li>▪ Floating buoy with 12 m diameter, mooring system and dynamic cable configuration;</li> <li>▪ Maximum number of mooring buoys: 2; and</li> <li>▪ Maximum anchor footprint (gravity based (both moorings)): 294 m<sup>2</sup>.</li> </ul> <p><b>Metoccean Buoys:</b></p> <ul style="list-style-type: none"> <li>▪ Floating buoy with 5 m diameter, mooring point;</li> <li>▪ Maximum number of metoccean buoys: 2; and</li> <li>▪ Maximum anchor footprint: 30 m<sup>2</sup>.</li> </ul>	

Impact	Realistic Worst-case Scenario	Rationale
	<p><b>Maintenance Activities:</b></p> <ul style="list-style-type: none"> <li>▪ Up to 500 m Safety Zones around major maintenance activities; and</li> <li>▪ Up to 63 IAC failures requiring repair across the operational life of the Bellrock Wind Farm Infrastructure (1.8 failures per year).</li> </ul>	
<p>O2: Displacement leading to gear conflict and increased fishing pressure on adjacent grounds</p>	<p>As described for O1.</p>	<p>The design scenario represents the maximum duration and extent of fishing exclusion throughout the O&amp;M phase and, hence, the greatest potential to lead to displacement of fishing effort.</p>
<p>O3: Disturbance of commercially important fish and shellfish resources leading to displacement or disruption of fishing activity</p>	<p>As described for <b>Chapter 8: Fish and Shellfish Ecology (Volume II)</b>.</p>	<p>The design scenario for fish and shellfish ecology receptors represents the maximum potential disturbance to commercial fisheries resources.</p>
<p>O4: Increased vessel traffic associated with the Bellrock Wind Farm Infrastructure within fishing grounds leading to interference with fishing activity</p>	<p>Up to 21 vessels at any one-time supporting maintenance activities (up to 211 round trips per year, inclusive of autonomous and unmanned vessels).</p>	<p>The maximum number of WTGs and associated infrastructure will lead to the highest level of maintenance activities and therefore highest level of maintenance vessel round trips.</p>
<p>O5: Additional steaming to alternative fishing grounds for vessels that would otherwise fish within the Bellrock WFDA</p>	<p>As described for O1.</p>	<p>The design scenario represents the maximum duration and extent of fishing exclusion (and thus need for steaming to alternative fishing grounds) throughout the O&amp;M phase and, hence, the greatest potential for additional steaming to alternative fishing grounds.</p>
<p>O6: Increased snagging risk, which could result in loss or damage to fishing gear</p>	<p>As described for O1.</p>	<p>The design scenario represents the maximum number and extent of project infrastructure and, hence, the greatest potential for gear snagging to occur.</p>

Impact	Realistic Worst-case Scenario	Rationale
<b>Decommissioning</b>		
<p>D1: Reduction in access to, or exclusion from established fishing grounds within the WFDA</p>	<p>It is expected that the Bellrock Wind Farm Infrastructure will be fully removed at the end of its operational life. Exceptions to this would be where removal would create unacceptable risks to personnel or to the marine environment, be technically unfeasible or involve extreme costs (Scottish Government, 2022c).</p> <p>The sequence of decommissioning is likely to be the reverse of the construction sequence, taking around seven years, with similar types and numbers of vessels and equipment expected to be involved.</p> <p>The removal and dismantling of the FOU's will largely be a reversal of the installation process. Generally, the FOU's will be towed from the Bellrock WFDA to a suitable port for decommissioning.</p> <p>Mooring lines and anchors will be recovered and removed from the WFDA. For FOU driven pile anchors, these are expected to be either fully removed or cut off below seabed level with a proportion remaining in-situ (due to anticipated excessive cost in their complete removal) following good practice and consideration of environmental conditions and sensitivities. Subsea cable hubs are expected to be fully removed from the seabed. The dynamic sections of the IACs within the water column will be cut at the connector with the static IAC and fully removed. The approach for decommissioning the static IACs on the seabed is yet to be determined, however, this will be reviewed throughout the lifetime of the Bellrock WFDA and good practice guidance at time of decommissioning will be followed.</p> <p>Subject to the material used and environmental sensitivities, it may be preferable to leave scour protection in-situ to preserve the marine habitat that may have developed over the life of the Bellrock WFDA. The approach for decommissioning cable protection will be similar to scour protection. Relevant stakeholders and regulators will be consulted to establish the best approach. Good practice guidance at time of decommissioning will be followed.</p> <p>During decommissioning it is proposed that the Applicant will apply for up to 500 m Safety Zones around each FOU location.</p>	<p>The scenario which represents the potential for the maximum level of infrastructure to be decommissioned.</p> <p>It is assumed that fishing will not resume throughout the decommissioning phase.</p> <p>In the absence of detailed methodologies and schedules, decommissioning works and associated implications for commercial fisheries are considered analogous with those assessed for the construction phase.</p>

Impact	Realistic Worst-case Scenario	Rationale
D2: Displacement leading to gear conflict and increased fishing pressure on adjacent grounds	As described for D1.	The scenario which represents the potential for the maximum level of infrastructure to be decommissioned.
D3: Disturbance of commercially important fish and shellfish resources leading to displacement or disruption of fishing activity	As described for <b>Chapter 8: Fish and Shellfish Ecology (Volume II)</b> .	The scenario which represents the potential for the maximum level of infrastructure to be decommissioned.
D4: Increased vessel traffic associated with the Bellrock Wind Farm Infrastructure within fishing grounds leading to interference with fishing activity	As described for D1.	The scenario which represents the potential for the maximum level of infrastructure to be decommissioned.
D5: Additional steaming to alternative fishing grounds for vessels that would otherwise fish within the Bellrock WFDA	As described for D1.	The scenario which represents the potential for the maximum level of infrastructure to be decommissioned.
D6: Increased snagging risk, which could result in loss or damage to fishing gear	As described for D1.	The scenario which represents the potential for the maximum amount of infrastructure to be decommissioned. The potential for gear snagging is recognised during decommissioning activities, particularly in scenarios where partial structures may temporarily remain in place. For example, if mooring lines or anchors are left in-situ after a FSS is removed, this may pose a higher risk of interaction with fishing gear. Similarly, the risk of dropped objects or debris during decommissioning operations could create snagging hazards.
<p>Notes:</p> <p><sup>1</sup> Site preparation works will commence up to one year before commencement of construction (year 0), at which point they may continue albeit as construction works (rather than site preparation works) these activities have been considered in the assessments of this Chapter, for completeness.</p> <p><sup>2</sup> One round trip comprises two movements (i.e. one to and one from the Bellrock WFDA).</p> <p><sup>3</sup> The maximum IAC length is 300 km; however, the maximum values presented for buried IAC (225 km, including up to 26.2 km with cable protection) and dynamic IAC (92.4 km) represent individual worst-case parameters and would not occur simultaneously. Accordingly, these values do not sum to the total IAC length.</p>		

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### 11.7.3 Embedded Mitigation Measures

78. This section outlines the embedded (primary and tertiary) mitigation relevant to the commercial fisheries assessment (as shown in **Table 11.13** below). Where additional mitigation measures are proposed, these are detailed in the impact assessment (**Section 11.8**). **Appendix 5.1: Mitigation and Monitoring Register (Volume IV)** sets out all mitigation measures.
79. The Applicant has made several commitments to avoid, prevent, reduce or, if possible, offset potential adverse environmental effects through mitigation measures embedded into the evolution of the design envelope. These embedded mitigation measures include actions that will be undertaken to meet other existing legislative requirements and those considered to be standard or best practice to manage commonly occurring environmental effects.

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**Table 11.13: Embedded Mitigation Measures Relevant to Commercial Fisheries**

Measure ID	Embedded Mitigation Measure	Mitigation Type	Means of Implementation
WFDA-4	Where seabed preparation is required (e.g. seabed levelling), methods and equipment that have been designed to minimise the potential for sediment suspension and dispersal will be adopted as far as is reasonably practicable.	Primary	Secured in the Section 36 (s.36) Consent and Marine Licence via a condition requiring a Construction Method Statement (CMS) to be developed and submitted to the Scottish Ministers for approval prior to commencement of construction.
WFDA-5	Static sections of the IACs will be installed with a target burial depth of 0.5 to 2.5 m (if burial is required and where ground conditions allow), to avoid the need for external cable protection. External cable protection will only be used where adequate burial cannot be achieved and will be minimised so far as reasonably practicable, thereby limiting permanent benthic habitat disturbance and habitat loss. The requirement for, and extent of, any cable protection will be determined through a post-consent Cable Burial Risk Assessment (CBRA).	Primary	Secured in the s.36 Consent and Marine Licence, via a condition requiring an Inter-array Cable Plan (IA-CaP) to be developed and submitted to the Scottish Ministers for approval before commencement of construction.
WFDA-9	Development of, and adherence to, a Seabed Obstruction Mitigation Plan (SOMP). The SOMP will set out any potential risks to legitimate sea users and identify measures to reduce these risks.	Tertiary	Secured in the s.36 Consent and Marine Licence, via a condition requiring a SOMP to be developed and submitted to the Scottish Ministers for approval no later than three months after cable laying has been completed.
WFDA-13	For all FSS designs (semi-submersible platform and barge that move with the tide and tension leg platform FSS design, which is restrained by tensioned moorings and does not move with the tide), the air gap will be maintained relative to the sea surface and will be minimum 22 m above all tidal levels. This project design envelope will therefore encompass the minimum 22 m air gap above mean high water springs required by the Maritime and Coastguard Agency (MCA).	Primary	Secured in the s.36 Consent and Marine Licence, via a condition requiring a CMS and Development Specification and Layout Plan (DSLPL) to be developed and submitted to the Scottish Ministers for approval before commencement of construction.
WFDA-14	Development of and adherence to an IA-CaP. The IA-CaP will set out detailed IAC installation methods and techniques (based on final project design). The IA-CaP will confirm planned IAC routing, burial (if any), and any additional protection if required, and will set out methods for post-installation IAC monitoring.	Tertiary	Secured in the s.36 Consent and Marine Licence, via a condition requiring an IA-CaP to be developed and submitted to the Scottish Ministers for approval before commencement of construction.

Measure ID	Embedded Mitigation Measure	Mitigation Type	Means of Implementation
WFDA-15	A detailed CBRA will be prepared where IACs are proposed to be buried to determine the target burial depth. The burial depths may vary and will be dependent on risk and ground conditions. The CBRA will also highlight instances where adequate burial cannot be achieved, and alternative protection is needed.	Primary	Secured in the s.36 Consent and Marine Licence, via a condition requiring an IA-CaP to be developed and submitted to the Scottish Ministers for approval before commencement of construction.
WFDA-16	Any damage, destruction, or decay of cables will be notified to MCA, Northern Lighthouse Board (NLB), Kingfisher, and the United Kingdom Hydrographic Office.	Tertiary	Secured in the s.36 Consent and Marine Licence.
WFDA-17	Development of, and adherence to, a VMNSP. The VMNSP will describe measures put in place by the Applicant related to navigational safety, including information on Safety Zones, charting, construction buoyage, temporary lighting and marking, and means of notification of activity at the Bellrock WFDA to other sea users (e.g. via Notice to Mariners with Kingfisher Bulletins or other appropriate methods). Where appropriate, guard vessels will be used to ensure adherence with Safety Zones or advisory passing distances.	Tertiary	Secured in the s.36 Consent and Marine Licence via a condition requiring a Vessel Management and Navigational Safety Plan to be developed and submitted to the Scottish Ministers for approval before commencement of construction.  An <b>Outline VMNSP (Volume V)</b> is submitted alongside the s.36 consent application and Marine Licence application for the Bellrock Wind Farm Infrastructure.
WFDA-19	Development of and adherence to a Marine Pollution Contingency Plan (MPCP) outlining the approach for managing and reducing risk of pollution and procedures to protect personnel and to be followed in the event of a pollution incident.	Tertiary	Secured in the s.36 Consent and Marine Licence, via a condition requiring a MPCP to be developed and submitted to the Scottish Ministers for approval before commencement of construction.  A <b>MPCP (Volume V)</b> is submitted alongside the s.36 consent application and Marine Licence application for the Bellrock Wind Farm Infrastructure.
WFDA-20	During the construction and O&M of the Wind Farm Infrastructure, periodic geophysical surveys would be required to ensure the IACs remain buried and if they do become exposed, remedial works will be undertaken.	Primary	Secured in the s.36 Consent and Marine Licence, via a condition requiring an IA-CaP to be developed and submitted to the Scottish Ministers for approval before commencement of construction.

Measure ID	Embedded Mitigation Measure	Mitigation Type	Means of Implementation
WFDA-21	An Environmental Management Plan (EMP) will be prepared and implemented to set out the procedures to avoid, reduce, and manage potential environmental effects arising across the construction and O&M of the Bellrock Wind Farm Infrastructure, in accordance with relevant international and national legislation and guidance.	Tertiary	Secured in the s.36 Consent and Marine Licence via a condition requiring an EMP to be developed and submitted to the Scottish Ministers for approval before commencement of construction.  An <b>Outline EMP (Volume V)</b> is submitted alongside the s.36 Consent application and Marine Licence application for the Bellrock Wind Farm Infrastructure.
WFDA-22	Advance warning and accurate location details of construction, maintenance, and decommissioning activities, associated Safety Zones, and advisory passing distances will be given via notifications to mariners and Kingfisher Bulletins.	Tertiary	Secured in the s.36 Consent and Marine Licence, via a condition requiring a VMP and NSP to be developed and submitted to the Scottish Ministers for approval before commencement of construction.  An <b>Outline VMNSP (Volume V)</b> is submitted alongside the s.36 Consent application and Marine Licence application for the Bellrock Wind Farm Infrastructure.
WFDA-26	<p>A detailed Marine Mammal Mitigation Protocol (MMMP) will be prepared for unexploded ordnance (UXO) clearance. The MMMP for UXO clearance will ensure there are adequate mitigation measures to minimise the risk of any physical or permanent auditory injury to marine mammals as a result of UXO clearance.</p> <p>The most suitable mitigation measures, based upon best available information and methodologies at that time will be utilised. The MMMP for UXO clearance will be prepared in consultation with the MD-LOT and NatureScot.</p> <p>The MMMP for UXO clearance will include details of all the required mitigation measures to minimise the potential risk of permanent threshold shift as a result of underwater noise during UXO clearance. This would consider the options, suitability and effectiveness of mitigation measures such as, but not limited to:</p> <ul style="list-style-type: none"> <li>▪ Avoidance of UXO if practicable;</li> <li>▪ Use of low-order clearance techniques, such as deflagration;</li> <li>▪ The potential use of noise abatement if any high-order detonation is required (taking into consideration the environmental limitations);</li> </ul>	Tertiary	<p>The Applicant will seek consent for UXO clearance activities via a separate Marine Licence application process.</p> <p>Secured in the UXO MMMP as part of a Marine Licence prior to construction.</p> <p>An <b>Outline MMMP (Volume V)</b> is submitted alongside the s.36 Consent application and Marine Licence application for the Bellrock Wind Farm Infrastructure.</p>

Measure ID	Embedded Mitigation Measure	Mitigation Type	Means of Implementation
	<ul style="list-style-type: none"> <li>▪ Monitoring requirements for marine mammal observers;</li> <li>▪ Requirements for acoustic deterrent devices; and</li> <li>▪ Other UXO clearance techniques, or relocation of UXO. If more than one high-order detonation is required, other measures such as the use of scare charges; or multiple detonations, if UXO are located in close proximity, will also be considered.</li> </ul>		
WFDA-28	Development of UXO Threat and Risk Assessment. All UXO detonations will be subject to a risk assessment undertaken in accordance with relevant guidance such as publication C754 Assessment and Management of UXO Risk in the Marine Environment (Construction Industry Research and Information Association, 2015).	Tertiary	A UXO Threat and Risk Assessment has been developed to support an indicative assessment of UXO clearance in the Bellrock WFDA EIA Report and will inform separate Marine Licence application(s) for UXO clearance.
WFDA-29	Development and implementation of a FMMCP. The FMMCP will describe the mitigation, monitoring, and communication measures to be implemented during the construction and O&M of the Bellrock Wind Farm Infrastructure to avoid or minimise adverse effects on commercial fisheries.	Tertiary	Secured in the s.36 Consent and Marine Licence via a condition requiring a FMMCP to be developed and submitted to the Scottish Ministers for approval before commencement of construction.  The <b>FMMCP (Volume V)</b> is submitted alongside the s.36 Consent application and Marine Licence application for the Bellrock Wind Farm Infrastructure.
WFDA-30	Participation in a Regional Commercial Fisheries Working Group (subject to a Commercial Fisheries Working Group being established and operating effectively) to assist with liaison between the Applicant and the fishing community.	Tertiary	Secured in the s.36 Consent and Marine Licence via a condition requiring a FMMCP to be developed and submitted to the Scottish Ministers for approval before commencement of construction.  The <b>FMMCP (Volume V)</b> is submitted alongside the s.36 Consent application and Marine Licence application for the Bellrock Wind Farm Infrastructure.

Measure ID	Embedded Mitigation Measure	Mitigation Type	Means of Implementation
WFDA-31	Adherence to best practice guidance with regards to fisheries liaison and procedures in the event of interactions between the Wind Farm Infrastructure and fishing activities (e.g. Guidance on Claim for Compensation for Damage or Loss of Fishing Gear, Loss of Fishing Time, or Damage to Vessel by Suspected Offshore Renewable Activity (Scottish Government, 2021) and Best Practice Guidance for Fisheries Liaison with Offshore Renewables Developments, in particular Chapter 7 (FLOWW, 2025 <sup>1</sup> ), in particular Section 7 (Disruption Settlements, Protocols for Lost/Damaged Gear, and Fisheries Community Funds).	Tertiary	Secured in the s.36 Consent and Marine Licence via a condition requiring a FMMCP to be developed and submitted to the Scottish Ministers for approval before commencement of construction.  The <b>FMMCP (Volume V)</b> is submitted alongside the s.36 Consent application and Marine Licence application for the Bellrock Wind Farm Infrastructure.
WFDA-32	Where boulder and/or UXO clearance removal is required during site preparation works or any phase of the WFDA, the location of UXO ordnance and large boulders that are relocated and may pose a snagging risk for fishing gear, will be disclosed to the fishing industry within a timely manner and in an accessible format.	Tertiary	Secured in the s.36 Consent and Marine Licence via a condition requiring a FMMCP to be developed and submitted to the Scottish Ministers for approval before commencement of construction.  The <b>FMMCP (Volume V)</b> is submitted alongside the s.36 Consent application and Marine Licence application for the Bellrock Wind Farm Infrastructure.
WFDA-33	Preparation of an Invasive Non-native Species Mitigation Plan (INNSMP) to include provisions for invasive non-native species management.  The INNSMP would implement biosecurity measures in line with international and national regulations and guidance, namely: <ul style="list-style-type: none"> <li>▪ International Convention for the Prevention of Pollution from Ships (MARPOL), which sets out requirements, including appropriate vessel maintenance;</li> <li>▪ The International Convention for the Control and Management of Ships' Ballast Water and Sediments, which provides an international framework for the control of transfer of potentially invasive non-native species from ballast water; and</li> <li>▪ Consideration of guidance from the International Maritime Organisation (International Maritime Organisation, 2023) on the control and management of ships' biofouling to minimise the transfer of invasive aquatic species.</li> </ul>	Tertiary	Secured in the s.36 Consent and Marine Licence via a condition requiring an INNSMP to be developed and submitted to the Scottish Ministers for approval before commencement of construction.  The <b>INNSMP (Volume V)</b> is submitted alongside the s.36 Consent application and Marine Licence application for the Bellrock Wind Farm Infrastructure.

Measure ID	Embedded Mitigation Measure	Mitigation Type	Means of Implementation
WFDA-34	<p>Adherence to the following international and national regulations and guidance, namely:</p> <ul style="list-style-type: none"> <li>International Convention for the Prevention of Pollution from Ships (MARPOL), which sets out requirements, including appropriate vessel maintenance;</li> <li>The International Convention for the Control and Management of Ships' Ballast Water and Sediments, which provides an international framework for the control of transfer of potentially invasive species from ballast water; and</li> <li>Consideration of guidance from the International Maritime Organisation (International Maritime Organisation, 2023) on the control and management of ships' biofouling to minimise the transfer of invasive aquatic species.</li> </ul>	Tertiary	<p>Secured in the s.36 Consent and Marine Licence via a condition requiring a VMNSP to be developed and submitted to the Scottish Ministers for approval before commencement of construction.</p> <p>An <b>Outline VMNSP (Volume V)</b> is submitted alongside the s.36 Consent application and Marine Licence application for the Bellrock Wind Farm Infrastructure.</p>
WFDA-35	<p>Ongoing liaison with commercial fishing interests will be maintained throughout construction, O&amp;M, and decommissioning of the Bellrock Wind Farm Infrastructure. A dedicated FLO will be appointed during the construction phase. During O&amp;M and decommissioning, appropriate fisheries liaison arrangements will be maintained, including the appointment of a FLO, if required.</p>	Tertiary	<p>Secured in the s.36 Consent and Marine Licence via a condition requiring a FMMCP and a condition requiring the appointment of a FLO to be developed and submitted to the Scottish Ministers for approval before commencement of construction.</p> <p>The <b>FMMCP (Volume V)</b> is submitted alongside the s.36 Consent application and Marine Licence application for the Bellrock Wind Farm Infrastructure.</p>
WFDA-36	<p>An application will be made post-consent for Safety Zones including:</p> <ul style="list-style-type: none"> <li>An application for Safety Zones for up to 500 m around each FOU during its construction;</li> <li>An application for Safety Zones for up to 50 m around each FOU when construction works have been completed but prior to commissioning, or where construction works are partially completed and a construction vessel is not present;</li> <li>An application for Safety Zones for up to 500 m around each FOU during major maintenance during operation;</li> <li>An application (prior to commencement of decommissioning) for Safety Zones for up to 500 m around each FOU during its decommissioning; and</li> </ul>	Primary	<p>Safety Zones will be applied for under Section 95 of the Energy Act 2004 and the Electricity (Offshore Generating Stations) (Safety Zones) (Application Procedures and Control of Access) Regulations 2007 before commencement of construction and where required, during construction and periods of major maintenance.</p> <p>Secured in the s.36 Consent and Marine Licence, via a condition requiring a VMP and NSP to be developed and submitted to the Scottish Ministers for approval before commencement of construction.</p>

Measure ID	Embedded Mitigation Measure	Mitigation Type	Means of Implementation
	<ul style="list-style-type: none"> <li>Consideration will also be given to an application for up to 500 m operational Safety Zones throughout the O&amp;M phase.</li> </ul>		An <b>Outline VMNSP (Volume V)</b> is submitted alongside the s.36 Consent application and Marine Licence application for the Bellrock Wind Farm Infrastructure.
WFDA-37	Where appropriate, guard vessels (or other suitable methods) will be used to ensure adherence with Safety Zones or advisory passing distances, as defined by risk assessment, to mitigate any impact which poses a risk to surface navigation during construction, O&M, and decommissioning phases.	Tertiary	Secured in the s.36 Consent and Marine Licence, via a condition requiring a VMP and NSP to be developed and submitted to the Scottish Ministers for approval before commencement of construction.  An <b>Outline VMNSP (Volume V)</b> is submitted alongside the s.36 Consent application and Marine Licence application for the Bellrock Wind Farm Infrastructure.
WFDA-38	Development of and adherence to a DSLP. A DSLP will be developed post-consent to finalise the Bellrock WFDA layout in consultation with the MCA and NLB.	Tertiary	Secured in the s.36 Consent and Marine Licence, via a condition requiring a DSLP to be developed and submitted to the Scottish Ministers for approval before commencement of construction.
WFDA-39	All relevant Wind Farm Infrastructure will be appropriately marked on all physical and electronic nautical charts as distributed by the United Kingdom Hydrographic Office.	Tertiary	Secured in the DSLP to be developed and submitted to the Scottish Ministers for approval before commencement of construction.
WFDA-40	Development of, and adherence to, an Lighting and Marking Plan (LMP). The LMP will confirm compliance with legal requirements with regards to shipping, navigation and aviation marking and lighting.  Failures of the lighting and marking within the Bellrock WFDA will be appropriately reported and rectified as soon as practicable. Interim hazard warnings will be put in place as required.	Tertiary	Secured in the s.36 Consent and Marine Licence, via a condition requiring a LMP to be developed and submitted to the Scottish Ministers for approval before commencement of construction.  An <b>Outline LMP (Volume V)</b> is submitted alongside the s.36 Consent application and Marine Licence application for the Bellrock Wind Farm Infrastructure.
WFDA-41	Any dropped objects during works associated with the Bellrock WFDA will be reported in line with MD-LOT's guidance on the ' <b>accidental deposit of an object at sea</b> ' (Marine Directorate, 2024) and objects will be recovered where they pose a hazard to other marine users and where recovery is practicable.	Tertiary	Secured in the s.36 Consent and Marine Licence via a condition an EMP to be developed and submitted to the Scottish Ministers for approval before commencement of construction.  An <b>Outline EMP (Volume V)</b> is submitted alongside the s.36 Consent application and Marine Licence Application for the Bellrock Wind Farm Infrastructure.

Measure ID	Embedded Mitigation Measure	Mitigation Type	Means of Implementation
WFDA-42	<p>Development of, and adherence to, an Emergency Response and Cooperation Plan (ERCoP).</p> <p>The ERCoP will detail protocols that will be undertaken in the event of an emergency, including occupational health and safety (H&amp;S), and set out clear roles and responsibilities, emergency contacts and reporting and escalation pathways. Protocols for extreme weather events will also be included.</p> <p>The ERCoP will mitigate the risk of climate change impacts on construction site personnel, plant and equipment and other assets and the risk of delays to the construction programme due to extreme weather events, which are becoming more frequent and intense due to climate change.</p> <p>The ERCoP will ensure the implementation of response protocols in the event of emergencies for offshore activities.</p>	Tertiary	<p>Secured in the s.36 Consent and Marine Licence via a condition requiring a NSP to be developed and submitted to the Scottish Ministers for approval before commencement of construction.</p> <p>An <b>Outline VMNSP (Volume V)</b> is submitted alongside the s.36 Consent application and Marine Licence application for the Bellrock Wind Farm Infrastructure.</p> <p>Submitted to the Scottish Ministers for approval via the VMNSP, which will address all the recommendations of the MCA in Marine Guidance Note (MGN) 654 (MCA, 2021).</p>
WFDA-43	<p>The Applicant will ensure compliance with the Regulatory Expectations on Moorings for Floating Wind and Marine Devices (MCA and Health and Safety Executive, 2017).</p>	Tertiary	<p>Secured in the s.36 Consent and Marine Licence via a condition requiring a NSP to be developed and submitted to the Scottish Ministers for approval before commencement of construction.</p> <p>An <b>Outline VMNSP (Volume V)</b> is submitted alongside the s.36 Consent application and Marine Licence application for the Bellrock Wind Farm Infrastructure.</p>
WFDA-44	<p>Marine coordination will be implemented to manage project vessels throughout construction, O&amp;M, and decommissioning periods, including in liaison with relevant ports and harbours.</p>	Tertiary	<p>Secured in the s.36 Consent and Marine Licence via a condition requiring a VMP and NSP to be developed and submitted to the Scottish Ministers for approval before commencement of construction.</p> <p>An <b>Outline VMNSP (Volume V)</b> is submitted alongside the s.36 Consent application and Marine Licence application for the Bellrock Wind Farm Infrastructure.</p>

Measure ID	Embedded Mitigation Measure	Mitigation Type	Means of Implementation
WFDA-45	<p>Project vessels will ensure compliance with international marine regulations as adopted by the Flag State, including the Convention on the International Regulations for Preventing Collisions at Sea (COLREGs) and the International Convention for the Safety of Life at Sea (SOLAS), thereby reducing the risk of navigational incidents, including vessel collisions, and associated risks to other sea users and the marine environment.</p>	Tertiary	<p>Secured in the s.36 Consent and Marine Licence via a condition requiring a VMP, to be developed and submitted to the Scottish Ministers for approval before commencement of construction.</p> <p>An <b>Outline VMNSP (Volume V)</b> is submitted alongside the s.36 Consent application and Marine Licence application for the Bellrock Wind Farm Infrastructure.</p>
WFDA-46	<p>The Applicant will ensure compliance with Marine Guidance Note 654 and its annexes, where applicable, including the completion post-consent of an ERCoP and a search and rescue checklist in consultation with the MCA.</p> <p>The ERCoP will ensure the implementation of response protocols in the event of emergencies for offshore activities.</p>	Tertiary	<p>Submitted to the Scottish Ministers for approval via the VMNSP, which will address all the recommendations of the Maritime and Coastguard Agency (MCA) in Marine Guidance Note 654 (MCA, 2021).</p> <p>An <b>Outline VMNSP (Volume V)</b> is submitted alongside the s.36 Consent application and Marine Licence application for the Bellrock Wind Farm Infrastructure.</p>
WFDA-47	<p>Development of, and adherence to, a Decommissioning Programme (DP).</p> <p>The DP will set out the framework for the safe, orderly, and environmentally acceptable decommissioning and removal of the Bellrock Wind Farm Infrastructure, in the interests of safety and environmental protection.</p> <p>Climate change risk measures will be included in the DP to be developed prior to the commencement of construction and will include a review of site-specific weather and metocean conditions, recent extreme weather events and up-to-date climate change projection data will be undertaken to ensure risk assessments, H&amp;S protocols and guidelines on safe working practices are suitable for future climate conditions at the time of decommissioning works. The DP will be refreshed prior to decommissioning activities commencing.</p> <p>The DP will mitigate the risk of climate change impacts on decommissioning site personnel, plant and equipment and other assets and the risk of delays to the decommissioning programme due to extreme weather events, which are becoming more frequent and intense due to climate change.</p>	Tertiary	<p>Secured in the s.36 Consent and Marine Licence, via a condition requiring a DP to be developed and submitted to the Scottish Ministers for approval before commencement of construction.</p>

Measure ID	Embedded Mitigation Measure	Mitigation Type	Means of Implementation
WFDA-50	No more than two non-rotating floating offshore units (FOU) will be towed together at once and will not exceed a velocity of 10 knots.	Primary	Secured in the s.36 Consent and Marine Licence via a condition requiring a VMP and NSP to be developed and submitted to the Scottish Ministers for approval before commencement of construction.  An <b>Outline VMNSP (Volume V)</b> is submitted alongside the s.36 Consent application and Marine Licence application for the Bellrock Wind Farm Infrastructure.
WFDA-51	Lights, marks, sounds, signals, and other aids to navigation will be exhibited as required by NLB, MCA, and the Civil Aviation Authority including the buoyed construction/decommissioning areas.	Tertiary	Secured in the s.36 Consent and Marine Licence via a condition requiring a LMP to be developed and submitted to the Scottish Ministers for approval before commencement of construction.  An <b>Outline LMP (Volume V)</b> is submitted alongside the s.36 Consent application and Marine Licence application for the Bellrock Wind Farm Infrastructure.
WFDA-52	The layout of the WTGs in the Bellrock WFDA, will be finalised in discussion with the MCA and NLB to ensure the specific layout is compatible with potential search and rescue activity.	Tertiary	Secured in the s.36 Consent and Marine Licence via a condition requiring a DSLP to be developed and submitted to the Scottish Ministers for approval before commencement of construction.
WFDA-60	Development of, and adherence to, a CMS.  The CMS will describe the methods for construction for all consented Wind Farm Infrastructure and set out the measures to be implemented to avoid or reduce adverse effects on the environment and legitimate users of the sea during the construction phase. This will include a clear definition of roles and responsibilities and reference to relevant H&S protocols.  In relation to climate change, the CMS will incorporate measures to ensure construction activities are resilient to current and projected extreme weather and metocean conditions. This will include, as appropriate: <ul style="list-style-type: none"> <li>▪ Monitoring of site-specific weather and metocean conditions, including use of recognised forecasting and severe weather alert services;</li> <li>▪ Programming and phasing of construction activities with regard to seasonality and short- to medium-term forecasts;</li> </ul>	Tertiary	Secured in the s.36 Consent and Marine Licence via a condition requiring a CMS to be developed and submitted to the Scottish Ministers for approval before commencement of construction.

Measure ID	Embedded Mitigation Measure	Mitigation Type	Means of Implementation
	<ul style="list-style-type: none"> <li>▪ Definition of safe working limits for vessel, lifting, and installation operations and procedures for suspension of works where thresholds are exceeded;</li> <li>▪ Measures to secure plant, equipment, and materials during adverse weather; and</li> <li>▪ Risk assessments and safety procedures that account for site-specific extreme weather risks.</li> </ul> <p>Through these measures, the CMS will mitigate risks to construction personnel, plant, and equipment, and reduce the potential for programme disruptions arising from extreme weather events.</p>		
WFDA-61	<p>Regular and periodic inspections and maintenance of all components of the Wind Farm Infrastructure will be undertaken over their operational lifetime to identify and remediate any damage and deterioration and maintain good working conditions. These will be included in the Operation and Maintenance Plan (OMP).</p> <p>Monitoring of site-specific weather and metocean conditions, recent extreme weather events and up-to-date climate change projection data will be undertaken to provide a dynamic risk assessment of climate change impacts and inform O&amp;M planning.</p> <p>The OMP will mitigate the risks of climate change impacts on the conditions and performance of the Wind Farm Infrastructure and ensures that it is adaptable to future climate conditions and remains resilient over its operational life. The O&amp;M strategy will be adaptive, with the frequency of maintenance, repair and replacement activities being adjusted based on need (i.e. increasing planned O&amp;M visits for components with higher deterioration rates than anticipated).</p>	Tertiary	Secured in the s.36 Consent and Marine Licence via a condition requiring an OMP to be developed and submitted to the Scottish Ministers for approval prior to the commissioning of the first WTG.

Measure ID	Embedded Mitigation Measure	Mitigation Type	Means of Implementation
WFDA-62	<p>Regular and periodic inspections and maintenance of the Wind Farm Infrastructure will be undertaken over its operational life to identify and remediate any damage and deterioration and maintain good working conditions (including any debris entangled with the Wind Farm Infrastructure).</p> <p>This will include but not be limited to:</p> <ul style="list-style-type: none"> <li>▪ Surveys of subsea infrastructure.</li> </ul>	Primary	Secured in the s.36 Consent and Marine Licence via a condition requiring an OMP to be developed and submitted to the Scottish Ministers for approval prior to the commissioning of the first WTG.
<p>Notes:</p> <p><sup>1</sup> It is noted that the Scottish Fishermen's Federation and related Associations have withdrawn from the FLOWW process. In the absence of alternative guidance supported by SFF, the Applicant will continue to adopt the FLOWW guidance and review its position should alternative guidance supported by SFF and related Associations be published.</p>			

## 11.8 Assessment of Effects

80. The potential effects to commercial fisheries that may occur during construction, O&M, and decommissioning of the Bellrock Wind Farm Infrastructure are assessed in the following sections. The assessment follows the methodology set out in **Section 11.4** and is based on the realistic worst-case scenarios defined in **Section 11.7.2**, with consideration of embedded mitigation measures identified in **Section 11.7.3**.

### 11.8.1 Potential Impacts During Construction

#### 11.8.1.1 C1: Reduction in Access to, or Exclusion from Established Fishing Grounds within the WFDA

##### 11.8.1.1.1 Sensitivity

81. The UK demersal otter trawl (including TR1: Whitefish and TR2: Nephrops), demersal seine, scallop dredge, beam trawl, potting, and gear with hooks fleets operate within parts of the regional and local study areas, with vessels predominantly landing into the ports of Peterhead and Fraserburgh (notably accounting for approximately 94% of the landed value from the commercial fisheries local study area). While these fleets utilise portions of the WFDA, they also access extensive alternative fishing grounds elsewhere within the North Sea. Demersal otter trawl fleets in particular are known to fish within parts of the WFDA but are more heavily dependent on other established grounds across the region. Other gears, such as potting, are extending operations further offshore and may undertake exploratory fishing activity within the WFDA. Gear with hooks, including longlines, are less likely to operate regularly in this area but may also conduct occasional exploratory fishing.
82. Based on available fishing activity and landing data, the demersal otter trawl fishery is evidenced to overlap with the WFDA, specifically due to defined and delineated Nephrops grounds in the east portion of the WFDA. Other fleets including demersal seine, dredge, beam trawl, potting, and gear with hooks fleets each exhibit a very low to low degree of spatial overlap with the Bellrock WFDA. All fleets maintain access to alternative fishing grounds within the wider commercial fisheries regional study area. These fleets also demonstrate a degree of operational adaptability and flexibility in response to spatial constraints. However, all gears are considered sensitive to the introduction of Wind Farm Infrastructure within the WFDA, on the assumption that fishing activity will not be able to resume within the WFDA due to the spatial footprint and mooring line radius associated with the SKSs. The resulting sensitivity is therefore coupled with both the range of viable alternative fishing grounds and the extent of spatial overlap with the Bellrock WFDA, leading to a **medium** sensitivity rating for demersal otter trawl activity (including TR1: Whitefish and TR2: Nephrops), and a **low** sensitivity rating for all other gears.
83. The Bellrock WFDA is not presently identified as a key area for pelagic fishing activity, including UK and non-UK fleets. However, pelagic vessels may transit through the area to access target fishing grounds further south, including those for herring, and may occasionally undertake exploratory fishing within or adjacent to the WFDA. Pelagic fleets are typically wide-ranging, seasonal, and highly adaptive in their operations. On this basis, the sensitivity of pelagic mobile gear fleets is assessed as **low**, reflecting limited dependence on the WFDA and similar grounds

being available elsewhere, but recognising the potential for exploratory use and transit through the WFDA.

84. The vulnerability of the identified fishing fleets to potential impacts arising from the presence of Wind Farm Infrastructure within the WFDA is considered to be moderate. While certain activities, such as demersal otter trawling, may experience localised displacement or reduced access to preferred fishing grounds, the availability of alternative grounds within the commercial fisheries regional study area provides some capacity for redistribution of effort. Fleets employing mobile demersal gears may be more susceptible to fishing operational constraints due to the spatial footprint of moorings and physical presence of Wind Farm Infrastructure and construction-related vessels; however, these impacts are expected to be localised and manageable through established fisheries liaison processes. Static and hook-based gears, which may undertake exploratory activity within the WFDA, are expected to be less directly affected. Consequently, overall vulnerability is assessed as medium for demersal otter trawl and low for all other fleets.
85. Recoverability, defined as the potential for fishing activity to adapt to or recover from spatial or operational constraints introduced by the Bellrock Wind Farm Infrastructure, is also assessed as medium across all fleets. This reflects the adaptive nature of fishing operations in the North Sea, where vessels routinely adjust to temporal and spatial restrictions arising from weather, regulatory measures, and dynamic stock distributions. The availability of alternative fishing grounds within reasonable steaming distance, coupled with established industry experience in responding to spatial limitations, supports a moderate level of recoverability.
86. To summarise, the sensitivity to the loss of access within the WFDA is assessed as **medium** for demersal otter trawl (including TR1: Whitefish and TR2: Nephrops), and **low** for all other commercial fisheries receptors.

#### **11.8.1.1.2 Magnitude of Impact**

87. Construction of the Bellrock Wind Farm Infrastructure is anticipated to extend over a period of up to 7 years (2031 to 2037) (with an additional year prior to construction for site preparation works (2030)) and will encompass an area of 280 km<sup>2</sup> (i.e. the entire WFDA boundary). Throughout this period, commercial fishing activity will be excluded from locations where construction is taking place, supported by the implementation of up to 500 m Safety Zones around active works, 50 m Safety Zones around partially complete structures, and rolling advisory distances of up to 500 m around mobile installation vessels. Given the scale and duration of the programme, and that construction activities may occur at multiple locations simultaneously, it is assumed that fishing will not resume within the WFDA for the duration of the 7-year construction phase. Although fishing will not be legally prohibited, the presence of catenary mooring lines, anchors or FOU's distributed throughout the WFDA is expected to render access for commercial fishing vessels impractical and unsafe. It is noted that the mooring and anchoring systems may be installed in advance of the FOU's being transported to the WFDA, with a potential time gap between their installation and subsequent connection, albeit occurring within the overall 7-year construction period.
88. The assumption regarding exclusion from fishing grounds during construction is central to the commercial fisheries impact assessment. A buoyed construction area will be established around active works, and this area could encompass the majority or entirety of the WFDA at various times during the 7-year construction period. The resulting loss of access to fishing grounds would displace commercial fishing activity from within the WFDA, removing access to the fish and

shellfish resources located there. This impact would affect fleets operating at both national and international scales and is expected to be continuous during the 7-year period (i.e. over a medium-term duration).

89. **UK demersal otter trawl:** consultation with the commercial fishing industry (see **Table 11.2**) has highlighted the importance of the WFDA to demersal otter trawl fisheries, specifically for two target fisheries:
- TR1: Whitefish, related to demersal otter trawl vessels typically operating pair trawls (i.e. between two vessels) targeting haddock, monkfish and mixed demersal species; and
  - TR2: Nephrops, related to demersal otter trawl vessels typically operating twin-rig trawl gear (i.e. one vessel, with the net separated by a clump weight into two cod-ends) targeting Nephrops.
90. The commercial fisheries local study area encompasses two ICES rectangles (42E9 and 42F0), of which the WFDA partially overlaps. The areal overlap of the WFDA (280 km<sup>2</sup>) with these ICES rectangles is approximately 4.2%. Landing statistics indicate a recent annual average value landed from the commercial fisheries local study area of £1.6 million based on a five-year average from 2019 to 2023 by all gear types, with 97% landed by demersal otter trawlers. By way of context, for the commercial fisheries regional study area (of which the ICES rectangles form part), £12.2 million is landed annually, with 54% by demersal otter trawlers (based on the same time period 2019 to 2023). Nephrops, haddock, monkfish, whiting, halibut and squid are caught by demersal otter trawlers in the local commercial fisheries local study area. Nephrops account for 78% of the demersal otter trawl landings from the commercial fisheries local study area.
91. VMS data from the MMO shows demersal otter trawl activity (including single, twin and pair trawling) within the commercial fisheries local study area occurring primarily within the eastern section of the WFDA and throughout the central portions of the WFDA; see **Appendix 11.1: Commercial Fisheries Baseline Report (Volume IV)**. This is corroborated by surface swept area data collated by ICES for demersal otter trawl vessels, and by long-term analysis of AIS data, in addition to feedback gathered during fishing industry consultation, as reported in **Appendix 11.1: Commercial Fisheries Baseline Report (Volume IV)**. Spatial fishing activity patterns also align with mapping of suitable Nephrops habitat within ICES rectangle 42F0 as part of the targeted Devil's Hole Nephrops Functional Unit (Scottish Government, 2022). Data on effort, hours fishing from FiSMaDiM (Fisheries Sensitivity Mapping and Displacement Modelling; Cefas, 2025), which combines activity based on AIS and VMS data, indicates that approximately 6% of the demersal otter trawl activity within the commercial fisheries local study area occurs within the WFDA.
92. Further evidence of fishing activity throughout the WFDA has been provided by the commercial fishing industry, in the form of fishing vessel plotter data. This data is considered important evidence to inform the impact assessment, however, is confidential in nature given that it is pertaining to individual vessels.
93. Plotter data provided by the fishing industry indicates distinct patterns of demersal otter trawl activity across the WFDA. Notably, a clearly defined focus of activity is evident in the eastern portion of the WFDA, representing the outer extent of a trawl line targeting Nephrops within the deeper trench system of Devil's Hole (see **Figure 11.1 (Volume III)**) by the TR2: Nephrops

demersal otter trawl fleet. In contrast, grounds within the central and central-eastern portions of the WFDA are fished less intensively, reflecting more diffuse or intermittent trawling effort targeting finfish species by the TR1: Whitefish demersal otter trawl fleet.

94. These data confirm that the WFDA overlaps with a small portion of actively fished grounds targeted by high-value TR2: Nephrops demersal otter trawl fisheries (i.e. the Devil's Hole), which is a key consideration for assessing potential construction-phase impacts on commercial fisheries.
95. Based on the assumption that fishing will not resume within the WFDA during the entirety of the construction phase, the UK demersal otter trawl TR2: Nephrops and TR1: Whitefish fleets would be directly impacted with the loss of the ability to fish across establish grounds that overlap the WFDA.
96. For the UK demersal otter trawl TR1: Whitefish fleet, the total value of whitefish landed by UK vessels from the North Sea in 2023 was approximately £138.5 million, of which £301,000 originated from the commercial fisheries local study area, representing 0.22% of the total UK landed value. Key target species are haddock, monkfish and whiting. Industry consultation highlights that recent developments in new facilities specifically for processing smaller size class of haddock may lead to an increase of fishing intensity in the region by this fleet sector. The processing facilities include automated filleting of smaller fish (above minimum conservation reference size) and onward sale into value-added products. It is therefore feasible that this fishery could return in the near future and be targeted in those areas that are currently fished using TR1: Whitefish demersal otter trawl.
97. Overall, the impact during construction is predicted to be of medium-term duration, to directly affect the UK demersal otter trawl TR1: Whitefish fishery which has a low value within the WFDA as evidenced by landing statistics and spatial data; therefore, the magnitude for TR1: Whitefish is considered to be **low**.
98. For the UK demersal otter trawl TR2: Nephrops fleet, the total value of Nephrops landed by UK vessels from the North Sea in 2023 was approximately £49.72 million, of which £1.2 million originated from the commercial fisheries local study area, representing 2.42% of the total UK landed value of Nephrops. The Devil's Hole grounds, located further offshore than other Nephrops fishing areas, are targeted by a select number of vessels with the capability and commitment to operate in deeper waters. Within the WFDA, Nephrops grounds comprise only a small proportion of the regularly targeted Devil's Hole fishing area (approximately 4% of total Devil's Hole landings), equating to less than 0.5% of total Nephrops landed by UK vessels from the North Sea. Given that the Total Allowable Catch is set at the North Sea level (across multiple Functional Units), opportunities exist for vessels to adjust effort across other Nephrops grounds within the region. While recognising the importance of Devil's Hole as a delineated and consistently targeted fishing ground, its relative economic value is lower compared to other Nephrops grounds, including those within the commercial fisheries local study area.
99. Overall, the impact during construction is predicted to be of medium-term duration, to directly affect the UK demersal otter trawl TR2: Nephrops fishery which has a moderate value within the WFDA and which is specifically targeted across grounds that overlap the WFDA as evidenced by landing statistics and spatial data; therefore, the magnitude for TR2: Nephrops is considered to be **medium**.

100. **UK demersal seine:** landing statistics indicate a recent annual average value landed from the commercial fisheries local study area by demersal seine gear of £42,500 (based on 2019 to 2023 landings and noting that data pre-2016 was not reported separately for demersal seine). Key target species are whiting and haddock. Spatial activity mapping indicates fishing intensity by demersal seines in the local and regional study areas is focused north of the WFDA and to the west. Similarly, as for TR1: Whitefish, industry consultation indicates that new processing facilities for smaller haddock could increase demersal seine effort in the region, meaning this fishery may return in the near future and target areas currently fished by demersal seines.
101. Plotter data show comparatively lower levels of demersal seine activity across the WFDA relative to demersal otter trawl. In the east and central portion of the WFDA, demersal seine activity is present though at lower intensity than adjacent trawl activity.
102. Due to the presence of a buoyed construction area and that multiple construction processes could be occurring simultaneously within the WFDA, it is assumed that fishing will not resume within the WFDA during the entirety of the construction phase. The UK demersal seine fleet would be directly impacted with the loss of the ability to fish across the WFDA, though it is noted that the fleet does not target key grounds here. Overall, the impact during construction is predicted to be of mid-term duration, to directly affect the fishery which has a low value within the WFDA as evidenced by landing statistics; therefore, the magnitude is considered to be **low**.
103. **UK pelagic trawl and purse seine:** landing statistics indicate a recent annual average value landed from the commercial fisheries local study area of £5,300 in herring fisheries. This is comparatively low to catches taken by this sector, which typically equate to a first sales value of £1 million per fishing trip/haul.
104. VMS data from the MMO show higher levels of activity than suggested by landing statistics. Pelagic trawl activity within the commercial fisheries local study area occurs primarily within ICES rectangle 42F0, notably to the south and east of the WFDA, with only limited activity recorded inside the WFDA (see **Appendix 11.1: Commercial Fisheries Baseline Report (Volume IV)**). Plotter data and VMS data for SPFA member vessels from 2013 – 2021 indicate that most pelagic trawl activity is concentrated immediately south of the WFDA, although vessel transit tracks show routes passing through the WFDA to access fishing grounds further south. This suggests that construction-phase infrastructure could affect the direction or alignment of pelagic trawl and purse seine gear deployment when vessels are operating to the south of the WFDA.
105. On the basis that fishing will not resume within the WFDA during the construction phase, the UK pelagic trawl fleet would be directly affected by the loss of access to this area. The fishery has a low value within the wider commercial fisheries local study area and activity levels within the WFDA are very low, as evidenced by VMS and AIS data and fishing industry plotter data (**Appendix 11.1: Commercial Fisheries Baseline Report (Volume IV)**). The impact during construction is therefore assessed as being of mid-term duration, with a **low** magnitude.
106. **Non-UK pelagic trawl and purse seine:** Landing statistics for EU vessels indicate small volumes of herring taken by Denmark, the Netherlands, Germany, France, Lithuania and Sweden vessels (see **Appendix 11.1: Commercial Fisheries Baseline Report (Volume IV)**). As the WFDA is located outside the 12 nm limit within the UK EEZ, these fleets currently have access rights and hold quota for herring in the North Sea, under the UK–EU Trade and Cooperation Agreement,

which provides continued access subject to annual negotiations and potential future revision. Given the low to medium value of this fishery within the WFDA, as evidenced by landing statistics and VMS data, the impact during construction is assessed as being of mid-term duration and of **low** magnitude.

107. **UK scallop dredge:** landing statistics show low levels of recorded landings by the UK scallop dredge fleet from the commercial fisheries local study area over the period 2019 to 2023, equating to £6,200 annually. Other ICES rectangles within the commercial fisheries regional study area are of greater importance to this fishery, with a recent annual average value of approximately £1.3 million recorded between 2019 and 2023. This is supported by VMS data, which show no evidence of dredge activity overlapping the WFDA.
108. Based on the assumption that fishing will not resume within the WFDA during the construction phase, the UK scallop dredge fleet would not be directly affected by the loss of access to the WFDA, as there is no evidence of routinely targeted scallop grounds within this area. Given the negligible value of this fishery within the WFDA, as evidenced by landing statistics, VMS data and fishing industry plotter data (**Appendix 11.1: Commercial Fisheries Baseline Report (Volume IV)**), the impact during construction is assessed as being of mid-term duration and of **negligible** magnitude.
109. **UK beam trawl:** landing statistics show no recorded landings by the UK beam trawl fleet from the commercial fisheries local study area over the period 2010 to 2023. Other ICES rectangles within the commercial fisheries regional study area show only very limited activity by this fleet, with a recent annual average value of <£1,000 recorded between 2019 and 2023. This is supported by VMS data, which show no evidence of beam trawl activity overlapping the WFDA.
110. Based on the assumption that fishing will not resume within the WFDA during the construction phase, the UK beam trawl fleet would not be directly affected by the loss of access to the WFDA, as there is no evidence of routinely targeted beam trawl grounds within this area. Given the negligible value of this fishery within the WFDA, as evidenced by landing statistics, VMS data and fishing industry plotter data (**Appendix 11.1: Commercial Fisheries Baseline Report (Volume IV)**), the impact during construction is assessed as being of mid-term duration and of **negligible** magnitude.
111. **UK potting:** Landing statistics indicate that UK vessels deploying pots have occasionally targeted brown crab within the commercial fisheries local study area during the period 2010 – 2023. However, landings were recorded in only a single year (2021), with a total landed value of approximately £3,000. This suggests that brown crab is rarely targeted within the commercial fisheries local study area, and that fishing activity is sporadic and of very limited economic importance over the timeframe analysed. This recently recorded activity is understood to possibly be associated with the increasing presence of larger vivier crabbers exploiting new grounds off the east coast of Scotland. The wider commercial fisheries regional study area is more important to the potting fleet, with recent annual average of £1.6 million from the commercial fisheries regional study area (based on 2019 to 2023).
112. It is noted that VMS data is not representative of the potting fleet, given that VMS data is only published for vessels 15 m and over. Landing statistics are considered with high confidence given that they include all vessel lengths and declaration of sales are required through the Registration

of Buyers and Sellers Legislation. Overall, the impact during construction is predicted to be of mid-term duration, to directly affect the fishery which has a low value within the WFDA as evidenced by landing statistics; therefore, the magnitude is considered to be **low**.

113. **UK gear with hooks:** landing statistics indicate negligible landings by vessels deploying gear with hooks (including handline and longline) within the commercial fisheries local study area. Overall, the impact during construction is predicted to be of mid-term duration, to not directly affect the fishery which has a negligible value within the WFDA as evidenced by landing statistics; therefore, the magnitude is considered to be **negligible**.

#### **11.8.1.1.3 Significance of Effect**

114. **UK demersal otter trawl TR1: Whitefish:** Overall, it is predicted that the sensitivity of the receptor is medium, and the magnitude is low. The effect is of **minor adverse** significance, which is **not significant** in EIA terms.
115. **UK demersal otter trawl TR2: Nephrops:** Overall, it is predicted that the sensitivity of the receptor is **medium**, and the magnitude is **medium**. The effect is of **moderate adverse** significance, which is **significant** in EIA terms.
116. **UK demersal seine:** Overall, it is predicted that the sensitivity of the receptor is **low**, and the magnitude is **low**. The effect is of **minor adverse** significance, which is **not significant** in EIA terms.
117. **UK pelagic trawl and purse seine:** Overall, it is predicted that the sensitivity of the receptor is **low**, and the magnitude is **low**. The effect is of **minor adverse** significance, which is **not significant** in EIA terms.
118. **Non-UK pelagic trawl and purse seine:** Overall, it is predicted that the sensitivity of the receptor is **low**, and the magnitude is **low**. The effect is of **minor adverse** significance, which is **not significant** in EIA terms.
119. **UK scallop dredge:** Overall, it is predicted that the sensitivity of the receptor is **low**, and the magnitude is **negligible**. The effect is **negligible**, which is **not significant** in EIA terms.
120. **UK beam trawl:** Overall, it is predicted that the sensitivity of the receptor is **low**, and the magnitude is **negligible**. The effect is **negligible**, which is **not significant** in EIA terms.
121. **UK potting:** Overall, it is predicted that the sensitivity of the receptor is **low**, and the magnitude is **low**. The effect is of **minor adverse** significance in EIA terms, which is **not significant** in EIA terms.
122. **UK gear with hooks:** Overall, it is predicted that the sensitivity of the receptor is **low**, and the magnitude is **negligible**. The effect is **negligible**, which is **not significant** in EIA terms.

#### **11.8.1.1.4 Additional Considerations**

123. The Applicant will continue to engage with the commercial fisheries industry and fisheries representatives through post-consent, pre-construction and construction to identify measures to minimise disruption to Nephrops fishing. Potential measures may be identified through an ongoing

review of the construction programme, vessel movements and working practices, and implementation of refinements identified through final design parameters and further engagement, where consistent with safety, engineering and project delivery considerations and consent and mitigation requirements.

124. The Applicant will implement and maintain fisheries communication and monitoring measures during the construction (including site preparation) and O&M phases of the Bellrock Wind Farm Infrastructure through the FMMCP, including routine information sharing, agreed points of contact, and monitoring ongoing fisheries activity.
125. The Applicant is confident that, as the final Wind Farm Infrastructure parameters are developed and defined, and following further engagement with fishers on those parameters, measures could be implemented such that loss of access to the Nephrops fishing area would, in reality, be mitigated further and non-significant. However, as the detail of these measures cannot yet be confirmed, consistent with the requirement to consider a realistic worst case scenario, the residual effect is retained as **moderate adverse** (significant in EIA terms) for the purpose of this assessment.

### 11.8.1.2 C2: Displacement Leading to Gear Conflict and Increased Fishing Pressure on Adjacent Grounds

#### 11.8.1.2.1 Sensitivity

126. The majority of UK mobile commercial fisheries fleets (including demersal otter trawl (TR1: Whitefish and TR2: Nephrops), demersal seine, scallop dredge and beam trawl fisheries) operating within and around the Bellrock WFDA are considered to have high availability of alternative fishing grounds, and an operational range that is not limited to the Bellrock WFDA or commercial fisheries local study area. The proximity of the Bellrock WFDA to key Scottish fishing ports of Aberdeen, Peterhead and Fraserburgh is noted. All mobile fleets are deemed to be of medium vulnerability, with medium recoverability. The sensitivity of all UK mobile demersal fleets is therefore, considered to be **medium**.
127. For UK and non-UK pelagic trawl and purse seine fleets, the high level of alternative fishing grounds and lower reliance on grounds closer to UK home ports results in a comparatively lower sensitivity than other mobile gear fleets. UK and non-UK pelagic fleets are deemed to be of low vulnerability, with medium recoverability; the sensitivity is therefore, considered to be **low**.
128. The UK potting fleet operates across large areas inshore from 0 to 12 nm. This form of static fishing gear is considered to have a high vulnerability to gear conflict interactions since it is left unattended on the seabed. There is potential for any displacement from mobile vessels from the WFDA to lead to exploration of other fishing grounds outside the Bellrock WFDA, which includes areas currently targeted by potters. While grounds targeted by potters may not be suitable for other mobile gears due to substrate, such as boulders and rocky grounds, the potential for gear conflict is well recognised (Plymouth Marine Laboratory, 2024). In this context, potting is particularly sensitive to secondary displacement. The UK potting fleet are, therefore, deemed to be of high vulnerability, with medium recoverability. The sensitivity of the UK potting fleet is therefore, considered to be **medium**.

129. The gear with hooks (also known as jigging) fishery is highly seasonal and targets a highly mobile species; the opportunity to catch mackerel is not likely to be impeded by construction activities and minimal displacement is anticipated. The sensitivity of this receptor is therefore, considered to be **negligible**.

#### **11.8.1.2.2 Magnitude of Impact**

130. This impact considers displacement during construction related to the Wind Farm Infrastructure. Loss of access or exclusion from fishing grounds due to the Bellrock Wind Farm Infrastructure may lead to displacement of this effort into other areas that may already be exploited thereby leading to increased pressure and/or gear conflict.
131. **UK demersal otter trawl** (TR1: Whitefish; TR2: Nephrops): The demersal otter trawl fleet is assessed to experience a low magnitude of displacement impact. While the WFDA overlaps grounds that are actively fished (including parts of the Devil's Hole trench system targeted by TR2), the affected vessels typically operate across a wide spatial range, both within the commercial fisheries regional study area and beyond, including grounds further north and into the Moray Firth. Landings and spatial activity data indicate that effort is routinely distributed (and is therefore variable) across multiple grounds over the season, with normal peaks and troughs experienced where vessels fish in response to weather, catch rates, market conditions, and fishers' operational considerations. In this context, the loss of access within the WFDA would represent a small spatial constraint within the overall fishing range, and the associated displacement is expected to be absorbed within normal operating practices, such that changes in where effort is deployed would be difficult to distinguish from typical year-to-year and intra-seasonal variation.
132. Alternative grounds are available and already used by these fleets, including other areas within the wider Devil's Hole Nephrops grounds and additional trawling grounds across the regional study area and further afield. Displaced activity is therefore expected to be redistributed through incremental adjustments to patterns of effort rather than a step-change relocation. Any increase in pressure would most likely occur on grounds already routinely worked by the same vessels, and given the relative scale of overlap and the fleet's operational flexibility, the resulting displacement effects are considered **low** magnitude for both TR1: Whitefish and TR2: Nephrops.
133. **UK demersal seine**: The demersal seine fleet is assessed to experience a **low** magnitude of impact. Evidence from fisheries data indicates activity across portions of the Bellrock WFDA footprint, although at a lower spatial intensity than that recorded for the demersal otter trawl fleet. This lower level of activity is partly attributable to the smaller number of vessels operating this gear type, rather than a complete absence of fishing interest in the area. Spatial and landings data indicate that the most important grounds for this fleet are located to the north and west of the WFDA, where fishing activity is more concentrated and of higher value. Activity within the WFDA itself is limited and intermittent, suggesting that the area forms only a marginal part of the wider fishing grounds targeted by this fleet. Accordingly, the magnitude of effect is assessed as **low**, reflecting the limited evidence of consistent activity within the WFDA and the availability of more productive and routinely utilised grounds in adjacent areas.
134. **UK and non-UK pelagic trawl and purse seine**: Pelagic fleets operate throughout the entirety of the North Sea, west of Scotland and Celtic Sea across a range of established fishing grounds. The fishery is highly seasonal. There are a limited number of pelagic vessels (e.g. approximately 22 in the Scottish fleet) that operate across a wide area targeting highly mobile species and catching to

an allocated quota level. Displacement is not expected to affect how pelagic vessels routinely operate. Overall, the magnitude of impact for the pelagic fleets is assessed as **low**.

135. **UK scallop dredge:** The scallop dredge fleet is assessed as experiencing a **low** magnitude of impact. These vessels operate over a wide area, including across the commercial fisheries regional study area and throughout other UK waters. The commercial fisheries local study area does not include known productive scallop grounds and is not routinely targeted.
136. Loss of access or the need to avoid specific areas during construction may result in some short-term disruption to routine fishing patterns; however, the magnitude of effect on scallop dredge activity within the WFDA is assessed as **low**. Spatial data and industry evidence indicate an absence of identified scallop grounds within the WFDA, with the nearest productive areas located elsewhere within the commercial fisheries regional study area. Scallop fishing typically occurs on well-defined gravelly sand habitats that are targeted in a cyclical pattern every two to five years, depending on stock availability and seabed condition. Given this cyclical nature and the distinct habitat requirements of the fishery, it is unlikely that displacement associated with the Bellrock Wind Farm Infrastructure would result in any material impact on scallop dredging operations. Accordingly, the potential for displacement to lead to disruption for this fleet is considered **low**.
137. **UK beam trawl:** The beam trawl fleet is assessed to experience a **negligible** magnitude of impact. Fisheries evidence indicates negligible levels of activity across the Bellrock WFDA footprint, with similarly low levels recorded across the wider commercial fisheries local study area. The limited footprint of activity reflects the very small number of vessels operating this gear type in the region and the absence of routinely targeted beam trawl grounds within or adjacent to the development area. Given this negligible baseline, there is no indication of meaningful dependency on the affected grounds, and displacement effects are expected to be minimal. Accordingly, the impact on the beam trawl fleet is assessed as being of **negligible** magnitude.
138. **UK potting:** Conflict between mobile and static gears can occur where displaced mobile gear (e.g. dredge or demersal otter trawl) explores grounds traditionally targeted by potters, or where displaced potting gear is relocated into other actively fished potting grounds. However, this risk is considered **negligible** within the Bellrock WFDA, as there is no evidence of established potting activity within the commercial fisheries local study area, and the primary potting grounds are concentrated within inshore waters, at a significant distance from the Bellrock WFDA. Spatial data confirm that the Bellrock WFDA does not overlap known or productive potting grounds, which are typically located closer to the coast where suitable substrate and target species densities occur.
139. Although mobile and static fishing sectors can interact elsewhere, such interactions are unlikely in this instance given the offshore location of the Bellrock WFDA and the delineated Nephrops trawl grounds that dominate the area. Any minor displacement of fishing effort within or around the Bellrock WFDA would therefore not be expected to result in overlap with established inshore potting activity.
140. Taking these factors into account, including the offshore nature of the Bellrock WFDA and the lack of overlap with active potting grounds, the magnitude of displacement impact on potting vessels is assessed as **low**.

141. **UK gear with hooks:** This fishery is highly seasonal and operated within inshore grounds. Fisheries evidence indicates negligible levels of activity across the Bellrock WFDA footprint, with similarly low levels recorded across the wider commercial fisheries local study area. Given this negligible baseline, there is no indication of meaningful dependency on the affected grounds, and displacement effects are expected to be minimal. Accordingly, the impact on the UK gear with hooks fleet is assessed as being of **negligible** magnitude.

### 11.8.1.2.3 *Significance of Effect*

142. **UK demersal otter trawl (TR1: Whitefish; TR2: Nephrops):** Overall, it is predicted that the sensitivity of the receptor is **medium**, and the magnitude is **low**. The effect is of **minor adverse** significance, which is **not significant** in EIA terms.
143. **UK demersal seine:** Overall, it is predicted that the sensitivity of the receptor is **medium**, and the magnitude is **low**. The effect is of **minor adverse** significance, which is **not significant** in EIA terms.
144. **UK pelagic trawl and purse seine:** Overall, it is predicted that the sensitivity of the receptor is **low**, and the magnitude is **low**. The effect is of **minor adverse** significance, which is **not significant** in EIA terms.
145. **Non-UK pelagic trawl and purse seine:** Overall, it is predicted that the sensitivity of the receptor is **low**, and the magnitude is **low**. The effect is of **minor adverse** significance, which is **not significant** in EIA terms.
146. **UK scallop dredge:** Overall, it is predicted that the sensitivity of the receptor is **medium**, and the magnitude is **low**. The effect is of **minor adverse** significance, which is **not significant** in EIA terms.
147. **UK beam trawl:** Overall, it is predicted that the sensitivity of the receptor is **medium**, and the magnitude is **negligible**. The effect is **negligible**, which is **not significant** in EIA terms.
148. **UK potting:** Overall, it is predicted that the sensitivity of the receptor is **medium**, and the magnitude is **low**. The effect is of **minor adverse** significance in EIA terms, which is **not significant** in EIA terms.
149. **UK gear with hooks:** Overall, it is predicted that the sensitivity of the receptor is **negligible**, and the magnitude is **negligible**. The effect is **negligible**, which is **not significant** in EIA terms.

### 11.8.1.3 **C3: Disturbance of Commercially Important Fish and Shellfish Resources Leading to Displacement or Disruption of Fishing Activity**

#### 11.8.1.3.1 *Sensitivity*

150. Exposure to potential impacts is likely, particularly for commercial fleets targeting Nephrops, which utilise the distinctive deep-water trench habitat associated with the Devil's Hole system intersecting the Bellrock WFDA. This area provides the complex seabed topography and sediment conditions preferred by Nephrops and supports a small number of specialised vessels that routinely operate within these grounds. Other commercial species, including haddock, whiting, scallop, brown crab, lobster, and mixed demersal finfish, also occur within the wider commercial fisheries regional study

area but are less closely associated with the specific trench features present within the east portion of the Bellrock WFDA.

151. Given the delineated nature of the Nephrops fishing grounds within the deep-water trench system and the operational importance of these habitats to a subset of locally based vessels, some sensitivity to potential disturbance or loss of access is anticipated. However, recognising the broader availability of alternative fishing grounds elsewhere in the North Sea, and the wide distribution of stocks in the North Sea, the sensitivity of all the receptor is assessed as **low**.

#### **11.8.1.3.2 Magnitude of Impact**

152. Noise and seabed disturbances during the construction phase may decrease or displace commercially important fish and shellfish populations from the area. Such disturbance could affect the owners and operators of fishing vessels if commercially important stocks are displaced or reduced to an extent that normal fishing practices are disrupted.
153. Detailed assessments of the following potential construction impacts on commercial important fish and shellfish species have been undertaken in **Chapter 8: Fish and Shellfish Ecology (Volume II)**:
- Physical disturbance and temporary habitat loss;
  - Increased suspended sediment concentration and sediment re-deposition: and
  - Underwater noise and vibration.
154. With respect to the magnitude of this impact on commercial fisheries, the overall significance of the effect on fish and shellfish species is considered (i.e. both the magnitude and sensitivity of fish and shellfish species are considered to assess the magnitude on commercial fishing fleets). This is because the overall effect on the fish and/or shellfish species relates directly to the availability and amount of exploitable resource. For instance, where an effect of minor adverse significance is assessed for a species, a low magnitude is assessed for commercial fishing, and so on.
155. Details of the fish and shellfish ecology assessments, together with the supporting evidence and justification are provided in **Chapter 8: Fish and Shellfish Ecology (Volume II)**. These assessments found all construction impacts to be of **negligible to minor adverse** significance for all commercially important fish and shellfish receptors.
156. The magnitude of impact is predicted to be of regional spatial extent, of relevance to international fishing fleets, of long-term duration and highly localised. It is predicted that the impact will affect the receptor directly through temporary loss of resources. The magnitude is therefore considered to be **low adverse** for all species and in relation to commercial fisheries receptors, all fleets are deemed to have a **low adverse** magnitude.

#### **11.8.1.3.3 Significance of Effect**

157. **All commercial fisheries receptors:** Overall, it is predicted that the sensitivity of the receptors is **low**, and the magnitude is **low adverse**. The effect is of **minor adverse** significance, which is **not significant** in EIA terms.

#### 11.8.1.4 C4: Increased Vessel Traffic Associated with the Bellrock Wind Farm Infrastructure Within Fishing Grounds Leading to Interference with Fishing Activity

##### 11.8.1.4.1 Sensitivity

158. Potting gear can be vulnerable to increased construction vessel movements within supply routes to and from entry and exit points due to risk of entanglement of construction vessel propellers with marker buoys of fishing gear. It is noted that construction vessels are likely to follow established shipping routes where possible. The sensitivity of the potting fleet is therefore, considered to be **medium**.
159. All other fishery fleets are expected to be in a position to avoid construction areas associated with the Bellrock Wind Farm Infrastructure. The sensitivity of pelagic trawl (including otter trawl and purse seine), demersal otter trawl fisheries (including otter trawl, demersal seine and beam trawl), the dredge fishery and gear with hooks fishery are considered to be **low**.

##### 11.8.1.4.2 Magnitude of Impact

160. This impact assesses the likely significant effects arising from Bellrock Wind Farm Infrastructure related vessel traffic and changes to shipping patterns as a result of any potential navigational channels leading to interference with fishing activity (reduced access) during construction.
161. Vessel movements (construction vessels transiting to and from areas undergoing construction works) related to the construction of the Bellrock Wind Farm Infrastructure will add to the existing level of shipping activity in the area, see **Chapter 12: Shipping and Navigation (Volume II)** for a full assessment of additional vessel movements.
162. Up to 1,615 round trips by site preparation and construction vessels with up to 34 project vessels within the WFDA at one time throughout the construction phase and will include vessels which are restricted in their ability to manoeuvre. Bellrock WFDA related vessels will be managed by Marine Coordination, including the use of traffic management procedures such as the designation of entry and exit points to and from the buoyed construction area. Bellrock WFDA related vessels will also carry AIS and be compliant with relevant Flag State regulations, including the Convention on the International Regulations for Preventing Collisions at Sea, 1972 (COLREGS; IMO, 1972), and comply with the procedures set out in the VMNSP (see the **Outline VMNSP (Volume V)**).
163. Safety Zones will be applied for including up to 500 m around FOU's where vessels are undertaking construction work and 50 m around partially completed or completed surface piercing structures prior to commissioning of the wind farm. Such Safety Zones will protect Bellrock WFDA-related vessels involved in construction which may be restricted in their ability to manoeuvre. If on-site, as deemed necessary via risk assessment, guard vessels (or other similar monitoring system) will also assist with monitoring Safety Zones and alerting third party traffic to their presence.
164. Details of construction activities, including the presence of Safety Zones and any use of advisory safe passing distances, as defined by risk assessment, will be suitably promulgated to marine users to maximise awareness of ongoing construction activities.

165. Additionally, the use of International Association of Marine Aids to Navigation and Lighthouse Authorities G1162 (IALA, 2021) compliant lighting and marking including lights, marks, sounds, signals and other aids to navigation as required by the NLB and the MCA will further maximise awareness, both in day and night conditions including in restricted visibility. This includes the buoyed construction area which will be agreed with the NLB prior to construction and within which Bellrock WFDA related vessels undertaking construction activities will most likely be located during construction activities. In addition, the Applicant will endeavour to agree shelter areas for construction vessels with the fishing industry to minimise impacts on fishing activities to the extent practicable, with these areas set out in the VMNSP (see the **Outline VMNSP (Volume V)**). The designation of preferential shelter areas does not over-ride the authority of any vessel master to take whatever navigational decisions are required for the safe operation of that vessel and other sea users.
166. It is noted that continuous liaison with the fishing industry will be undertaken to communicate information on the location and duration of construction activities. Further details are provided in the **FMMCP (Volume V)**.
167. All fishing fleets are considered to be able to avoid vessel movements related to construction of the Wind Farm Infrastructure based on prior provision of construction details (timings and locations) allowing fishing vessels to plan their activities. This, alongside use of traffic management procedures including entry and exit points for Bellrock WFDA related vessels; use of buoyed construction area and adherence to the VMNSP mean that the magnitude is therefore, considered to be **low adverse** for all fisheries.

#### **11.8.1.4.3 Significance of Effect**

168. **UK potting:** Overall, it is predicted that the sensitivity of the receptors is **medium**, and the magnitude is **low adverse**. The effect is of **minor adverse** significance, which is **not significant** in EIA terms.
169. **All other commercial fisheries receptors:** Overall, it is predicted that the sensitivity of the receptors is **low**, and the magnitude is **low adverse**. The effect is of **minor adverse** significance, which is **not significant** in EIA terms.

#### **11.8.1.5 C5: Additional Steaming to Alternative Fishing Grounds for Vessels that would Otherwise Fish within the Bellrock WFDA**

##### **11.8.1.5.1 Sensitivity**

170. Potting activity within and around the Bellrock WFDA is limited and not recorded as a routine component of fishing effort. While smaller inshore vessels typically operate closer to the coast, some larger vivier vessels may undertake exploratory potting across parts of the Bellrock WFDA. These vessels generally haul and re-set fleets of traps or pots on a daily basis and may occasionally explore deeper offshore grounds. Given appropriate advance notification, it is expected that these vessels would be able to avoid active construction areas; however, some additional steaming time and associated operational costs may be incurred when relocating to alternative grounds. The sensitivity of this receptor is therefore assessed as **medium**.

171. Pelagic otter trawl and purse-seine fleets are considered to have moderate to high availability of alternative fishing grounds and a wide operational range throughout the North Sea, Celtic Sea, and West of Scotland. Assuming prior notification enabling fishers to plan activities accordingly, the sensitivity of this receptor is considered to be **low** for pelagic trawl and purse-seine fleets.
172. For all other fleets, given the importance of the waters extending from the nearshore out to the Bellrock WFDA and the proximity of key ports including Peterhead, Fraserburgh, and Aberdeen, the sensitivity associated with increased steaming times is considered to be **medium**.

#### **11.8.1.5.2 Magnitude of Impact**

173. A detailed Navigational Risk Assessment has been undertaken and is provided in **Appendix 12.1: Bellrock Wind Farm Development Area Navigational Risk Assessment (Volume IV)**, which includes full consideration of commercial fishing vessels while transiting (e.g. from a collision and allision perspective). This assessment focuses on the likely significant effects arising from longer steaming distances to alternative fishing grounds that would have otherwise been targeted within the Bellrock WFDA.
174. Details of construction activities will be promulgated in advance of, and throughout, the construction phase via the usual means (e.g. Notices to Mariners, Kingfisher Bulletins) to ensure that mariners are aware of ongoing works. Localised construction operations will necessitate minor deviations for fishing vessels operating in the vicinity of the works. Such impacts are expected to be localised to the Bellrock WFDA.
175. The demersal otter trawl fleet has identified key fishing grounds across the Bellrock WFDA, specifically within the deep-water trench system of Devil's Hole, which provides suitable habitat for target species such as Nephrops. Activity in this area reflects the operational specialisation of certain vessels capable of working within deeper and more topographically complex grounds. Given adequate advance notification, it is expected that these vessels will be able to avoid active construction zones and adjust operations accordingly, with only limited additional steaming time required to access alternative grounds, which would also be part of their normal operational range. Considering the localised extent of construction activities to the Bellrock WFDA and the availability of comparable grounds within the wider regional area, the magnitude of impact for the demersal otter trawl fleet is assessed as **low adverse**.
176. For all other fleets, with prior notification of construction activities, it is not anticipated that significant additional steaming or major deviation from normal operating practices would be required to access alternative fishing grounds outside the Bellrock WFDA. While some temporary inconvenience may arise in planning fishing operations around construction activities, this is expected to be short term, intermittent, and readily reversible. The impact is therefore predicted to be of regional spatial extent, medium-term duration, and low intensity. Based on these considerations, the magnitude of impact is assessed as **low adverse** for all fisheries receptors.

#### **11.8.1.5.3 Significance of Effect**

177. **UK and non-UK pelagic trawl and purse seine:** Overall, it is predicted that the sensitivity of the receptors is **low**, and the magnitude is **low adverse**. The effect is of **minor adverse** significance, which is **not significant** in EIA terms.

178. **All other commercial fisheries receptors:** Overall, it is predicted that the sensitivity of the receptors is **medium**, and the magnitude is **low adverse**. The effect is of **minor adverse** significance, which is **not significant** in EIA terms.

### 11.8.1.6 C6: Increased Snagging Risk, which could Result in Loss or Damage to Fishing Gear

#### 11.8.1.6.1 Sensitivity

179. Due to the nature and operation of mobile demersal and dredge gears, which are actively towed and maintain near-continuous seabed contact, there is an inherent vulnerability to interaction with subsea infrastructure. This includes potential snagging on SKSs or dynamic cabling associated with FSSs. The sensitivity of mobile demersal and dredge fisheries is therefore assessed as **medium**.
180. While potting and line/jigging gears are typically deployed in a static manner rather than towed, there remains potential for entanglement with dynamic cabling or mooring lines located within the Bellrock WFDA. Potting gear set within or near the Bellrock WFDA could interact with suspended or tensioned fishing lines, and line gears, such as longlines left in-situ, may similarly become entangled with subsea Wind Farm Infrastructure. Given these operational risks and the potential for loss or damage to gear, the sensitivity of potting and line/jigging vessels is considered to be **medium**.
181. Although pelagic trawl and purse-seine gear generally operate within the water column and does not make contact with the seabed, there remains some potential for interaction with mooring lines or other suspended infrastructure associated with the FOUUs. Considering this risk, together with the wide operational range of pelagic fleets and the possibility of incidental entanglement within the water column, the sensitivity of pelagic trawl and purse seine fleets is assessed as **medium**.

#### 11.8.1.6.2 Magnitude of Impact

182. The under construction and physical presence of semi-constructed infrastructure on the seabed represents potential snagging points for fishing gear and could lead to damage to, or loss of, fishing gear. The safety aspects including potential loss of life as a result of snagging risk are assessed within **Chapter 12: Shipping and Navigation (Volume II)**.
183. Throughout the construction phase, Safety Zones will be applied for including up to 500 m around structures where vessels are undertaking construction work and 50 m around partially completed or completed surface piercing structures prior to commissioning of the Bellrock Wind Farm Infrastructure.
184. In the instance that snagging does occur, the Applicant will work to the protocols laid out within available guidance including Scottish Government (2021): Guidance on claim for compensation for damage or loss of fishing gear, loss of fishing time, or damage to vessel by suspected offshore renewable activity.
185. Snagging poses a risk to fishing equipment and in extreme cases may potentially lead to capsize of vessel and crew fatalities, as well as damage to subsea infrastructure. Three phases of interaction are possible: initial impact of gear and subsea infrastructure; pullover of gear across subsea infrastructure; and snagging or hooking of gear on the subsea infrastructure. The snagging

or hooking of fishing gear with infrastructure/cables on the seabed is the most hazardous to the vessel and crew due to the possibility of capsizing.

186. It is considered likely that fishermen will operate appropriately (adhering to Safety Zones and advisory distances and avoiding under construction infrastructure and cable protection at the defined locations) given adequate notification of the locations of any snagging hazards and are highly likely to avoid the under construction infrastructure and cable protection within the Bellrock WFDA.
187. Based on the embedded mitigation measures set out in **Table 11.13** and the commitment to follow standard protocols should snagging occur, the magnitude is considered to be **low adverse** for all fleets.

### **11.8.1.6.3 Significance of Effect**

188. **All commercial fisheries receptors:** Overall, it is predicted that the sensitivity of the receptors is **medium**, and the magnitude is **low adverse**. The effect is of **minor adverse** significance, which is **not significant** in EIA terms.

## **11.8.2 Potential Impacts During Operation and Maintenance**

### **11.8.2.1 O1: Reduction in Access to, or Exclusion from Established Fishing Grounds within the Bellrock WFDA**

#### **11.8.2.1.1 Sensitivity**

189. The sensitivity is as described for C1 (**Section 11.8.1.1.1**), summarised as **medium** for demersal otter trawl and **low** for all other commercial fisheries receptors.

#### **11.8.2.1.2 Magnitude of Impact**

190. Reduction in access to, or exclusion from established fishing grounds within the Bellrock WFDA may arise due to the physical presence of the Wind Farm Infrastructure, as well as O&M activities within the Bellrock WFDA.
191. Based on a maximum mooring line radius of approximately 1,300 m from the foundation, each floating offshore unit and SKS would occupy a potential mooring footprint of around 5.31 km<sup>2</sup>. Assuming theoretical placement with no overlap between adjacent mooring systems, the total potential mooring area could extend to approximately 700 km<sup>2</sup>, which exceeds the 280 km<sup>2</sup> extent of the Bellrock WFDA. As all mooring lines, anchors, and associated infrastructure will be located within the Bellrock WFDA, it is evident that a degree of spatial overlap between mooring footprints must occur. With up to 132 FOU's and a minimum spacing of approximately 1,150 m (measured centre to centre), the combined infrastructure and mooring network are expected to occupy the entire Bellrock WFDA, leaving no unobstructed areas for fishing operations. It is therefore assumed that commercial fishing activity will not resume within the Bellrock WFDA during the O&M period.
192. It is acknowledged that fishing would not be formally prohibited from resuming within the Bellrock WFDA; however, due to the extensive spatial footprint of SKSs and other Wind Farm Infrastructure, it is considered highly unlikely that fishing operations would recommence within the Bellrock WFDA during the O&M phase of the Bellrock Wind Farm Infrastructure.

193. This assumption that fishing will not resume within the Bellrock WFDA is consistently applied to all commercial fisheries receptors. This impact is long term, occurring throughout the operational lifetime of 35 years.
194. The construction impact assumed that fishing would not resume within the Bellrock WFDA for a period of approximately seven years, while the O&M impact assumes that fishing would not resume for a longer duration of approximately 35 years. During the construction phase, fishers are likely to have adapted to the presence of the Bellrock Wind Farm Infrastructure by modifying their operations to avoid the WFDA, and this behavioural adaptation is expected to continue throughout the operational phase. The assumption that fishing will not resume is supported by the reduced operational viability of fishing within the Bellrock WFDA due to the density of infrastructure in the water column, the presence of mooring lines, and the FOU spacing, all of which create practical and operational constraints for most commercial fishing methods. Although the operational phase is of longer duration, the ongoing adaptation of fishers, the low to moderate economic value of fishing within the Bellrock WFDA, and the availability of alternative Nephrops grounds within the wider Devil's Hole trench system, where the Bellrock WFDA represents only the terminal section of a trawl line, justify maintaining the same magnitude of impact for the demersal otter trawl fleet during the O&M phase as that assessed for the construction phase. The magnitude of impact during the O&M phase is therefore assessed at the same level as C1 (**Section 11.8.1.1**).
195. The magnitude of impact is therefore summarised as **low** for UK demersal otter trawl TR1: Whitefish, **medium** for UK demersal otter trawl TR2: Nephrops, **low** for UK demersal seine; **low** for UK and non-UK pelagic trawl and purse seine fleets; **low** for UK potting; and **negligible** for UK scallop dredge, UK beam trawl and UK gear with hooks.

### 11.8.2.1.3 Significance of Effect

196. **UK demersal otter trawl TR1: Whitefish:** Overall, it is predicted that the sensitivity of the receptor is **medium**, and the magnitude is **low**. The effect is of **minor adverse** significance, which is **not significant** in EIA terms.
197. **UK demersal otter trawl TR2: Nephrops:** Overall, it is predicted that the sensitivity of the receptor is **medium**, and the magnitude is **medium**. The effect is of **moderate adverse** significance, which is **significant** in EIA terms.
198. **UK demersal seine:** Overall, it is predicted that the sensitivity of the receptor is **low**, and the magnitude is **low**. The effect is of **minor adverse** significance, which is **not significant** in EIA terms.
199. **UK pelagic trawl and purse seine:** Overall, it is predicted that the sensitivity of the receptor is **low**, and the magnitude is **low**. The effect is of **minor adverse** significance, which is **not significant** in EIA terms.
200. **Non-UK pelagic trawl and purse seine:** Overall, it is predicted that the sensitivity of the receptor is **low**, and the magnitude is **low**. The effect is of **minor adverse** significance, which is **not significant** in EIA terms.
201. **UK scallop dredge:** Overall, it is predicted that the sensitivity of the receptor is **low**, and the magnitude is **negligible**. The effect is **negligible**, which is **not significant** in EIA terms.

202. **UK beam trawl:** Overall, it is predicted that the sensitivity of the receptor is **low**, and the magnitude is **negligible**. The effect is **negligible**, which is **not significant** in EIA terms.
203. **UK potting:** Overall, it is predicted that the sensitivity of the receptor is **low**, and the magnitude is **low**. The effect is of **minor adverse** significance in EIA terms, which is **not significant** in EIA terms.
204. **UK gear with hooks:** Overall, it is predicted that the sensitivity of the receptor is **low**, and the magnitude is **negligible**. The effect is **negligible**, which is **not significant** in EIA terms.

#### **11.8.2.1.4 Additional Considerations**

205. The Applicant will continue to engage with the commercial fisheries industry and fisheries representatives throughout the lifetime of the Project, including during the O&M phase. This engagement will be used to identify measures for O&M activities and associated vessel operations, to minimise disruption to Nephrops fishing.
206. The Applicant will implement and maintain fisheries communication measures during the construction (including site preparation) and O&M phases of the Bellrock Wind Farm Infrastructure through the FMMCP (or its successor arrangements applicable during operation), including routine information sharing and agreed points of contact to support ongoing coexistence.
207. The Applicant is confident that, following further engagement with fishers, both before and during the O&M phase, practicable measures such as optimisation to the timing of planned O&M activities, vessel movements and working practices could be implemented such that loss of access to the Nephrops fishing area would, in reality, be non-significant. However, as these measures cannot yet be confirmed, consistent with the requirement to consider a realistic worst case, the residual effect is retained as moderate adverse (significant in EIA terms).

#### **11.8.2.2 O2: Displacement Leading to Gear Conflict and Increased Fishing Pressure on Adjacent Grounds**

##### **11.8.2.2.1 Sensitivity**

208. The sensitivity is as described for C2 (**Section 11.8.1.2.1**), summarised as **medium** for demersal otter trawl, demersal seine, dredge, beam trawl, and potting; and **low** for the UK and non-UK pelagic trawl and purse seine fishing fleets and **negligible** for the gear with hooks fleet.

##### **11.8.2.2.2 Magnitude of Impact**

209. During the operational phase, it is assumed that fishing will not resume within the Bellrock WFDA for any fishing fleets. While some adaptation to the presence of the Wind Farm Infrastructure and a gradual reduction in displacement effects may occur over time, the magnitude of impact is considered to vary by fleet, depending on operational dependency and spatial overlap with the Bellrock WFDA.
210. For the UK demersal otter trawl fleet (TR1: Whitefish and TR2: Nephrops), the Bellrock WFDA overlaps parts of routinely fished grounds, including a section of the wider Devil's Hole Nephrops grounds. However, vessels operating these fisheries typically have a wide operational range across the commercial fisheries regional study area and also beyond it, including grounds further north and into the Moray Firth, and can also fish in other areas within Devil's Hole. On the basis that any

reduction in access within the WFDA during the O&M phase would be accommodated through incremental reallocation of effort within normal operating practices (including seasonal peaks and troughs in grounds worked), and would be difficult to distinguish from typical variation in fishing patterns, the magnitude of impact for both TR1: Whitefish and TR2: Nephrops is assessed as **low**.

211. For the UK demersal seine, pelagic trawl and purse seine, UK scallop dredge, and UK potting fleets, the magnitude of impact is assessed as **low**, reflecting limited evidence of routine fishing activity within the Bellrock WFDA, the availability of alternative grounds in the wider commercial fisheries regional study area, and the ability of these fleets to adapt their operations.
212. For the UK beam trawl and UK gears with hooks (e.g. longline or jigging), no fishing activity has been recorded within the Bellrock WFDA, and the magnitude of impact is therefore assessed as **negligible**.

### 11.8.2.2.3 Significance of Effect

213. **UK demersal otter trawl:** Overall, it is predicted that the sensitivity of the receptor is **medium**, and the magnitude is **low**. The effect is of **minor adverse** significance, which is **not significant** in EIA terms.
214. **UK demersal seine:** Overall, it is predicted that the sensitivity of the receptor is **medium**, and the magnitude is **low**. The effect is of **minor adverse** significance, which is **not significant** in EIA terms.
215. **UK pelagic trawl and purse seine:** Overall, it is predicted that the sensitivity of the receptor is **low**, and the magnitude is **low**. The effect is of **minor adverse** significance, which is **not significant** in EIA terms.
216. **Non-UK pelagic trawl and purse seine:** Overall, it is predicted that the sensitivity of the receptor is **low**, and the magnitude is **low**. The effect is of **minor adverse** significance, which is **not significant** in EIA terms.
217. **UK scallop dredge:** Overall, it is predicted that the sensitivity of the receptor is **medium**, and the magnitude is **low**. The effect is of **minor adverse** significance, which is **not significant** in EIA terms.
218. **UK beam trawl:** Overall, it is predicted that the sensitivity of the receptor is **medium**, and the magnitude is **negligible**. The effect is **negligible**, which is **not significant** in EIA terms.
219. **UK potting:** Overall, it is predicted that the sensitivity of the receptor is **medium**, and the magnitude is **low**. The effect is of **minor adverse** significance in EIA terms, which is **not significant** in EIA terms.
220. **UK gear with hooks:** Overall, it is predicted that the sensitivity of the receptor is **negligible**, and the magnitude is **negligible**. The effect is **negligible**, which is **not significant** in EIA terms.

### 11.8.2.3 O3: Disturbance of Commercially Important Fish and Shellfish Resources Leading to Displacement or Disruption of Fishing Activity

#### 11.8.2.3.1 Sensitivity

221. Exposure to the impact is likely and commercial fleets targeting key species may be affected, including haddock, monkfish, whiting, herring, mackerel, Nephrops, scallop, brown crab, lobster, and other demersal finfish.
222. Due to the range of areas targeted and the distribution of key commercial species throughout the northern, central and southern North Sea, all fleets are deemed to be of low vulnerability and high recoverability. The sensitivity of the receptor for all fisheries is therefore, considered to be **low**.

#### 11.8.2.3.2 Magnitude of Impact

223. Habitat loss, EMF, and noise disturbances during the O&M phase may decrease or displace commercially important fish and shellfish populations from the area. Such disturbances could affect the owners and operators of fishing vessels if commercially important stocks are displaced or reduced to an extent that normal fishing practices are disrupted.
224. Detailed assessments of the following potential O&M impacts have been undertaken in **Chapter 8: Fish and Shellfish Ecology (Volume II)**:
- Physical disturbance and temporary habitat loss;
  - Increased suspended sediment concentration and re-deposition;
  - Underwater noise and vibration;
  - EMFs;
  - Permanent habitat loss;
  - EMFs; and
  - Introduction of hard structures.
225. The fish and shellfish ecology assessment found all O&M impacts to range from no effect to **minor adverse** significance for all fish and shellfish receptors. The potential effect on resources is not expected to be beyond what could be discernible from baseline conditions for fish and shellfish resources.
226. The magnitude of impact is predicted to be of regional spatial extent, of relevance to international fishing fleets, of long-term duration and to affect the receptor directly. The magnitude is therefore considered to be **low adverse** for all species and all potential resource impacts.

#### 11.8.2.3.3 Significance of Effect

227. **All commercial fisheries receptors:** Overall, it is predicted that the sensitivity of the receptors is **medium**, and the magnitude is **low**. The effect is of **minor adverse** significance, which is **not significant** in EIA terms.

#### 11.8.2.4 O4: Increased Vessel Traffic Associated with the Bellrock Wind Farm Infrastructure within Fishing Grounds Leading to Interference with Fishing Activity

##### 11.8.2.4.1 Sensitivity

228. The sensitivity is as described for C4 (**Section 11.8.1.4.1**), summarised as **medium** for the potting fishing fleet; and **low** for all other fleets.

##### 11.8.2.4.2 Magnitude of Impact

229. This section assesses the likely significant effects arising from Bellrock WFDA related vessel traffic and changes to shipping patterns as a result of any potential navigational channels leading to interference with fishing activity (reduced access) during O&M phase.

230. The maximum number of vessel round trips during the O&M period is 211 annually and will include vessels which are restricted in their ability to manoeuvre. The maximum number of vessels on site at one time during the O&M period is 21.

231. As per the construction phase as described under C4 (**Section 11.8.1.4**), Bellrock WFDA related vessels will be managed by Marine Coordination, carry AIS and being compliant with relevant Flag State regulations. Also, Safety Zones will be applied for including up to 500 m around structures where vessels are undertaking major maintenance work.

232. The magnitude of impact of interference of fishing activity due to the presence and transiting of maintenance vessels during the O&M phase is decreased compared to in the construction phase given that fewer Bellrock WFDA related vessels will generally be on-site at any time, noting the much longer duration of the O&M phase. Based on the low level of Bellrock WFDA related vessel activity across a long time period, the magnitude is therefore, considered to be **low** for all fisheries.

##### 11.8.2.4.3 Significance of Effect

233. **UK potting:** Overall, it is predicted that the sensitivity of the receptor is **medium**, and the magnitude is **low**. The effect is of **minor adverse** significance, which is **not significant** in EIA terms.

234. **All other commercial fisheries receptors:** Overall, it is predicted that the sensitivity of the receptors is **low**, and the magnitude is **low**. The effect is of **minor adverse** significance, which is **not significant** in EIA terms.

#### 11.8.2.5 O5: Additional Steaming to Alternative Fishing Grounds for Vessels that Would Otherwise Fish within the Bellrock WFDA

##### 11.8.2.5.1 Sensitivity

235. The sensitivity is as described for C5 (**Section 11.8.1.5.1**), summarised as **low** for pelagic trawl and purse seine fishing fleets; and **medium** for all other fleets.

#### 11.8.2.5.2 *Magnitude of Impact*

236. A detailed Navigational Risk Assessment has been undertaken and is provided in **Appendix 12.1: Bellrock Wind Farm Development Area Navigational Risk Assessment (Volume IV)**, which includes full consideration of commercial fishing vessels while transiting (e.g. from a collision and allision perspective). This assessment focuses on the likely significant effects arising from longer steaming distances to alternative fishing grounds that would have otherwise been targeted within the Bellrock WFDA, including all related infrastructure within the Bellrock WFDA.
237. The magnitude of impact of increased steaming times due to the presence of the Wind Farm Infrastructure during the O&M phase is expected to be the same or similar to that during construction for all commercial fishing fleets. While the operational phase is longer duration (35 years) compared to construction, it is expected that fishing vessels will adjust to the presence of the Bellrock Wind Farm Infrastructure over time. It is also noted that commercial fishing vessels may choose to transit through the Bellrock WFDA during the O&M phase. It is predicted that the impact will affect the receptor directly. Based on the justifications above, the magnitude is therefore, as described for C5 (**Section 11.8.1.5**), summarised as **low** for all commercial fisheries fleets.

#### 11.8.2.5.3 *Significance of Effect*

238. **UK and non-UK pelagic trawl and purse seine:** Overall, it is predicted that the sensitivity of the receptor is **low**, and the magnitude is **low**. The effect is of **minor adverse** significance, which is **not significant** in EIA terms.
239. **All other commercial fisheries receptors:** Overall, it is predicted that the sensitivity of the receptors is **medium**, and the magnitude is **low**. The effect is of **minor adverse** significance, which is **not significant** in EIA terms.

### 11.8.2.6 **O6: Increased Snagging Risk, Which Could Result in Loss or Damage to Fishing Gear**

#### 11.8.2.6.1 *Sensitivity*

240. The sensitivity is as described for C6 (**Section 11.8.1.6.1**), summarised as **medium** for all commercial fisheries fleets.

#### 11.8.2.6.2 *Magnitude of Impact*

241. The physical presence of infrastructure on the seabed represents potential snagging points for fishing gear and could lead to damage to, or loss of, fishing gear. The safety aspects including potential loss of life as a result of snagging risk are assessed within **Chapter 12: Shipping and Navigation (Volume II)**.
242. During O&M phase, up to a 500 m advisory safe passing distance around vessels undertaking major maintenance activities will be assumed around structures undergoing maintenance and associated vessels including remedial repair work to the SKSs and IACs.
243. The protocols outlined for C6 (**Section 11.8.1.6.2**), will be followed during operational phase. The magnitude of effect is considered to be the same as during construction, summarised as **low** for all fleets.

### 11.8.2.6.3 Significance of Effect

244. **All commercial fisheries receptors:** Overall, it is predicted that the sensitivity of the receptors is **medium**, and the magnitude is **low**. The effect is of **minor adverse** significance, which is **not significant** in EIA terms.

## 11.8.3 Potential Impacts During Decommissioning

### 11.8.3.1 D1: Reduction in Access to, or Exclusion from Established Fishing Grounds within the Bellrock WFDA

245. The effects of decommissioning activities are expected to be the same or similar to the effects from construction (**Section 11.8.1.1**). The significance of effect is therefore **minor adverse** for UK demersal otter trawl TR1: Whitefish, **moderate adverse** for UK demersal otter trawl TR2: Nephrops, which is **significant** in EIA terms, and **minor adverse** for UK demersal seine, UK and non-UK pelagic trawl and purse seine, and UK potting, which is **not significant** in EIA terms; and **negligible adverse** for UK scallop dredge, UK beam trawl and UK gear with hooks, which is **not significant** in EIA terms.
246. The Applicant will continue to engage with the commercial fisheries industry and fisheries representatives throughout the lifetime of the Project, including in the development of the decommissioning programme. This engagement will identify measures for decommissioning activities and associated vessel operations, to minimise disruption to Nephrops fishing.
247. As the decommissioning phase is likely to require a separate Marine Licence, the Applicant will implement and maintain fisheries communication throughout the duration of the decommissioning phase, through a FMMCP specific to the decommissioning phase (or similar arrangements applicable at decommissioning).
248. The Applicant is confident that, following further engagement with fishers during the development of the decommissioning programme, practicable measures such as optimisations to decommissioning timing, vessel movements and working practices could be implemented such that loss of access to the Nephrops fishing area would, in reality, be non-significant. However, as these measures cannot yet be confirmed, consistent with the requirement to consider a realistic worst case, the residual effect for the UK demersal otter trawl TR2: Nephrops fleet is retained as **moderate adverse** (significant in EIA terms)

### 11.8.3.2 D2: Displacement Leading to Gear Conflict and Increased Fishing Pressure on Adjacent Grounds

249. The effects of decommissioning activities are expected to be the same or similar to the effects from construction (**Section 11.8.1.2**). The significance of effect is therefore **minor adverse** for UK demersal otter trawl (TR1: Whitefish and TR2: Nephrops), UK demersal seine, UK and non-UK pelagic trawl and purse seine, UK scallop dredge and UK potting and **negligible** for UK beam trawl and UK gear with hooks, which is **not significant** in EIA terms.

### 11.8.3.3 D3: Disturbance of Commercially Important Fish and Shellfish Resources Leading to Displacement or Disruption of Fishing Activity

250. The effects of decommissioning activities are expected to be the same or similar to the effects from construction (**Section 11.8.1.3**). This significance of effect is therefore **minor adverse** for all commercial fisheries receptors, which is **not significant** in EIA terms.

### 11.8.3.4 D4: Increased Vessel Traffic Associated with the Bellrock Wind Farm Infrastructure within Fishing Grounds Leading to Interference with Fishing Activity

251. The effects of decommissioning activities are expected to be the same or similar to the effects from construction (**Section 11.8.1.4**). This significance of effect is therefore **minor adverse** for all commercial fisheries receptors, which is **not significant** in EIA terms.

### 11.8.3.5 D5: Additional Steaming to Alternative Fishing Grounds for Vessels that would Otherwise Fish Within the Bellrock WFDA

252. The effects of decommissioning activities are expected to be the same or similar to the effects from construction (**Section 11.8.1.5**). This significance of effect is therefore **minor adverse** for all commercial fisheries receptors, which is **not significant** in EIA terms.

### 11.8.3.6 D6: Increased Snagging Risk, which could Result in Loss or Damage to Fishing Gear

253. The effects of decommissioning activities are expected to be the same or similar to the effects from construction (**Section 11.8.1.6**). This significance of effect is therefore **minor adverse** for all commercial fisheries receptors, which is **not significant** in EIA terms.

## 11.9 Cumulative Effects Assessment

254. The CEA follows the methodology set out in **Chapter 5: EIA Methodology (Volume II)** and summarised in **Section 11.4.2**.

### 11.9.1 Screening of Potential Cumulative Impacts

255. Potential impacts from the Bellrock WFDA alone assessment were brought forward into the CEA. Some potential impacts considered for the Bellrock WFDA alone assessment may be specific to a particular phase of development (e.g. construction, O&M, or decommissioning). The potential for cumulative effects with other plans or projects requires spatial and/or temporal overlap with the Bellrock Wind Farm Infrastructure during the relevant phases of development. Therefore, impacts associated with a certain phase may be screened out from further consideration where no projects or plans have been identified that have the potential for cumulative effects during the same temporal period and/or across the same spatial extent. All impacts considered in the Bellrock WFDA alone assessment (**Section 11.8**) were initially brought forward for CEA impact pathway screening (**Table 11.14**). Impact screening considered the Zone of Influence of the impacts and the plans and projects identified in **Table 11.15**. Impacts with no rationale for cumulative effects i.e., those assessed as no change or where impacts were highly spatially and/or temporally constrained, and therefore would not contribute to a cumulative effect, were screened out.

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**Table 11.14: Potential Cumulative Impacts (Commercial Fisheries Impact Screening)**

Potential Impact	Bellrock WFDA-alone Residual Effect	Potential for Cumulative Effects	Rationale
<b>Construction Phase</b>			
C1: Reduction in access to, or exclusion from established fishing grounds within the WFDA	Significant (Moderate adverse)	Yes	Other developments in the North Sea have the potential to reduce access to fishing grounds.
C2: Displacement leading to gear conflict and increased fishing pressure on adjacent grounds	Not Significant (Minor adverse)	Yes	Incremental displacement effects across the region can lead to cumulative effects.
C3: Disturbance of commercially important fish and shellfish resources leading to displacement or disruption of fishing activity	Not Significant (Minor adverse)	Yes	Incremental disruption to fish and shellfish species may have wider stock effects.
C4: Increased vessel traffic associated with the proposed development within fishing grounds leading to interference with fishing activity	Not Significant (Minor adverse)	No	Highly localised nature of the impact. Given the scale of Project-alone effects there would be no interaction of effects and additive effects across the study area would be negligible across projects.
C5: Additional steaming to alternative fishing grounds for vessels that would otherwise fish within the proposed development	Not Significant (Minor adverse)	No	
C6: Increased snagging risk, which could result in loss or damage to fishing gear	Not Significant (Minor adverse)	No	
<b>Operation and Maintenance Phase</b>			
O1: Reduction in access to, or exclusion from established fishing grounds within the WFDA	Significant (Moderate adverse)	Yes	Other developments in the North Sea have the potential to reduce access to fishing grounds.
O2: Displacement leading to gear conflict and increased fishing pressure on adjacent grounds	Not Significant (Minor adverse)	Yes	Incremental displacement effects across the region can lead to cumulative effects.

Potential Impact	Bellrock WFDA-alone Residual Effect	Potential for Cumulative Effects	Rationale
O3: Disturbance of commercially important fish and shellfish resources leading to displacement or disruption of fishing activity	Not Significant (Minor adverse)	Yes	Incremental disruption to fish and shellfish species may have wider stock effects.  Highly localised nature of the impact. Given the scale of Project-alone effects there would be no interaction of effects and additive effects across the study area would be negligible across projects.
O4: Increased vessel traffic associated with the proposed development within fishing grounds leading to interference with fishing activity	Not Significant (Minor adverse)	No	
O5: Additional steaming to alternative fishing grounds for vessels that would otherwise fish within the proposed development	Not Significant (Minor adverse)	No	
O6: Increased snagging risk, which could result in loss or damage to fishing gear	Not Significant (Minor adverse)	No	
<b>Decommissioning Phase</b>			
D1: Reduction in access to, or exclusion from established fishing grounds within the WFDA	Significant (Moderate adverse)	Yes	Other developments in the North Sea have the potential to reduce access to fishing grounds.
D2: Displacement leading to gear conflict and increased fishing pressure on adjacent grounds	Not Significant (Minor adverse)	Yes	Incremental displacement effects across the region can lead to cumulative effects.
D3: Disturbance of commercially important fish and shellfish resources leading to displacement or disruption of fishing activity	Not Significant (Minor adverse)	Yes	Incremental disruption to fish and shellfish species may have wider stock effects.
D4: Increased vessel traffic associated with the proposed development within fishing grounds leading to interference with fishing activity	Not Significant (Minor adverse)	No	Highly localised nature of the impact. Given the scale of Project-alone effects there would be no interaction of effects and additive effects across the study area would be negligible across projects.
D5: Additional steaming to alternative fishing grounds for vessels that would otherwise fish within the proposed development	Not Significant (Minor adverse)	No	
D6: Increased snagging risk, which could result in loss or damage to fishing gear	Not Significant (Minor adverse)	No	

## 11.9.2 Screening of Other Plans, Projects and Activities

256. Potential cumulative plans and projects were identified and screened in **Appendix 5.3: Cumulative Effects Assessment Long List of Projects (Volume IV)**. The commercial fisheries cumulative study area has been defined as the North Sea, which is considered to be representative of the fishing grounds exploited by the fleets active across the regional study area, for all fleets except scallop dredging. For scallop dredging the cumulative study area is defined at a UK level; this is because the UK fleet of scallop dredgers are nomadic in nature and target grounds across the North Sea, west of Scotland, Irish Sea and English Channel.
257. This approach aligns with the approach of other assessments of offshore wind farms progressing under the ScotWind leasing round; however, it is noted that scallop dredge grounds are not identified within the Bellrock WFDA and therefore the cumulative North Sea region is more pertinent for this assessment. The commercial fisheries cumulative study area is presented in **Figure 11.2 (Volume III)**.
258. The projects included in the cumulative study area are presented in **Figure 11.3 (Volume III)** and this is mapped with commercial fisheries data for demersal otter trawl in **Figure 11.4 (Volume III)**, based on FiSMaDiM data (Cefas, 2024) which shows the cumulative hours of fishing from 2012 to 2021 based on VMS and AIS data. It should be noted that this dataset includes only vessels equipped with VMS and/or AIS systems, typically those 12 m in length and over, and is therefore not fully representative of inshore fishing activity, particularly smaller vessels operating under 12 m.
259. The plans and projects which have been subsequently scoped into the CEA for commercial fisheries are outlined in **Table 11.17** and presented in **Figure 11.3 (Volume III)**. Given that there is no potential pathway for impact to commercial fisheries due to the proposed Bellrock Onshore Transmission Infrastructure, and therefore no potential for likely significant effects from those works on commercial fisheries, the Bellrock Onshore Transmission Development Area has not been considered further within the CEA.
260. The proposed Offshore Transmission Infrastructure will be located within the proposed Bellrock OfTDA (**Figure 4.2 (Volume III)**) and is assessed within the CEA because of potential receptor impact pathways. As the Bellrock OfTDA overlaps with the Bellrock WFDA, the likely significant effects of the Bellrock Wind Farm Infrastructure together with the Bellrock Offshore Transmission Infrastructure within the overlapping area, so far as these can be ascertained at this stage, are assessed within the Bellrock WFDA EIA Report.

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**Table 11.15: Other Plans and Projects Considered Within the CEA for Commercial Fisheries**

Plan/Project	Type of Development	Status at the Time of Assessment (i.e. Application Submitted, or Consented, etc.)	Closest Distance from Bellrock WFDA (km)	Date of Construction	Date of Operation	Tier	Rationale
Aspen	Offshore Wind Farm	In Planning (Application Submitted)	81	2028 – 2031	2032	1	Potential temporal overlap with the construction, O&M and decommissioning phases of the Bellrock Wind Farm Infrastructure.
Ayre	Offshore Wind Farm	In Planning (Application Submitted)	235	2030 – 2034	2035	1	Potential temporal overlap with the construction, O&M and decommissioning phases of the Bellrock Wind Farm Infrastructure.
Bellrock OfTDA	Offshore Wind Farm	Pre-planning	0	2031 to 2036	2037	1	Potential temporal overlap with the construction, O&M and decommissioning phases of the Bellrock Wind Farm Infrastructure.
Berwick Bank	Offshore Wind Farm	Consented/Pre-construction	86	2028 – 2031	2032	1	Potential temporal overlap with the construction, O&M and decommissioning phases of the Bellrock Wind Farm Infrastructure.
Buchan	Offshore Wind Farm	In Planning (Application Submitted)	163	2029 – 2032	2033	1	Potential temporal overlap with the construction, O&M and decommissioning phases. of the Bellrock Wind Farm Infrastructure
Caledonia	Offshore Wind Farm	In Planning (Application Submitted)	183	2027 – 2030	2031	1	Potential temporal overlap with the construction, O&M and decommissioning phases of the Bellrock Wind Farm Infrastructure.

Plan/Project	Type of Development	Status at the Time of Assessment (i.e. Application Submitted, or Consented, etc.)	Closest Distance from Bellrock WFDA (km)	Date of Construction	Date of Operation	Tier	Rationale
Cenos	Offshore Wind Farm	In Planning (Application Submitted)	61	2030 – 2034	2035	1	Potential temporal overlap with the construction, O&M and decommissioning phases of the Bellrock Wind Farm Infrastructure.
Dogger Bank South (East and West)	Offshore Wind Farm	In Planning (Application Submitted)	240	2027 – 2032	2033	1	Potential temporal overlap with the construction, O&M and decommissioning phases. of the Bellrock Wind Farm Infrastructure
Dudgeon Extension	Offshore Wind Farm	Consented/Pre-construction	388	2028 – 2030	2031	1	Potential temporal overlap with the construction, O&M and decommissioning phases. of the Bellrock Wind Farm Infrastructure
East Anglia ONE North	Offshore Wind Farm	Consented/Pre-construction	505	2028 – 2030	2031	1	Potential temporal overlap with the construction, O&M and decommissioning phases of the Bellrock Wind Farm Infrastructure.
Erebus T&D	Offshore Wind Farm	Consented/Pre-construction	686	2028 – 2030	2031	1	Potential temporal overlap with the construction, O&M and decommissioning phases of the Bellrock Wind Farm Infrastructure.
Five Estuaries	Offshore Wind Farm	In Planning (Application Submitted)	550	2027 – 2030	2031	1	Potential temporal overlap with the construction, O&M and decommissioning phases of the Bellrock Wind Farm Infrastructure.

Plan/Project	Type of Development	Status at the Time of Assessment (i.e. Application Submitted, or Consented, etc.)	Closest Distance from Bellrock WFDA (km)	Date of Construction	Date of Operation	Tier	Rationale
Green Volt	Offshore Wind Farm	Consented/Pre-construction	107	2027 – 2030	2031	1	Potential temporal overlap with the construction, O&M and decommissioning phases of the Bellrock Wind Farm Infrastructure.
Muir Mhòr	Offshore Wind Farm	In Planning (Application Submitted)	52	2028 – 2031	2032	1	Potential temporal overlap with the construction, O&M and decommissioning phases of the Bellrock Wind Farm Infrastructure.
Ossian	Offshore Wind Farm	Planning (Application submitted)	9	2031 – 2038	2038	1	Potential temporal overlap with the construction, O&M and decommissioning phases of the Bellrock Wind Farm Infrastructure.
Outer Dowsing	Offshore Wind Farm	Planning (Application submitted)	358	2027 – 2030	2031	1	Potential temporal overlap with the construction, O&M and decommissioning phases of the Bellrock Wind Farm Infrastructure.
Seagreen Phase 1A	Offshore Wind Farm	Consented/Pre-construction	96	2029 – 2032	2033	1	Potential temporal overlap with the construction, O&M and decommissioning phases of the Bellrock Wind Farm Infrastructure.
Sheringham Shoal Extension	Offshore Wind Farm	Consented/Pre-construction	399	2028 – 2032	2033	1	Potential temporal overlap with the construction, O&M and decommissioning phases of the Bellrock Wind Farm Infrastructure.

Plan/Project	Type of Development	Status at the Time of Assessment (i.e. Application Submitted, or Consented, etc.)	Closest Distance from Bellrock WFDA (km)	Date of Construction	Date of Operation	Tier	Rationale
Arven (including Arven South)	Offshore Wind Farm	Planning (Scoping Request Submitted)	362	2030 – 2035	2036	2	Potential temporal overlap with the construction, O&M and decommissioning phases of the Bellrock Wind Farm Infrastructure.
Bowdun Offshore Wind Farm	Offshore Wind Farm	In Planning (Scoping Request Submitted)	62	2031 – 2032	2033	2	Potential temporal overlap with the construction, O&M and decommissioning phases of the Bellrock Wind Farm Infrastructure.
Broadshore Offshore Wind Farm	Offshore Wind Farm	In Planning (Scoping Request Submitted)	166	2029 – 2031	2032	2	Potential temporal overlap with the construction, O&M and decommissioning phases of the Bellrock Wind Farm Infrastructure.
CampionWind	Offshore Wind Farm	In Planning (Scoping Request Submitted)	24	N/A	N/A	2	Potential temporal overlap with the construction, O&M and decommissioning phases of the Bellrock Wind Farm Infrastructure.  In November 2025, Shell returned the Option to Lease for the CampionWind project to Crown Estate Scotland. In agreement with MD-LOT, CampionWind is included in this CEA screening process.
Dogger Bank D	Offshore Wind Farm	In Planning (Scoping Request Submitted)	236	2029 – 2032	2033	2	Potential temporal overlap with the construction, O&M and decommissioning phases of the Bellrock Wind Farm Infrastructure.

Plan/Project	Type of Development	Status at the Time of Assessment (i.e. Application Submitted, or Consented, etc.)	Closest Distance from Bellrock WFDA (km)	Date of Construction	Date of Operation	Tier	Rationale
MarramWind	Offshore Wind Farm	Planning (Scoping Request Submitted)	125	2030 – 2032	2033	2	Potential temporal overlap with the construction, O&M and decommissioning phases of the Bellrock Wind Farm Infrastructure.
Scaraben Offshore Wind Farm	Offshore Wind Farm	In Planning (Scoping Request Submitted)	167	2029 – 2031	2032	2	Potential temporal overlap with the construction, O&M and decommissioning phases of the Bellrock Wind Farm Infrastructure.
Sinclair Offshore Wind Farm	Offshore Wind Farm	Planning (Scoping Request Submitted)	171	2029 – 2031	2032	2	Potential temporal overlap with the construction, O&M and decommissioning phases of the Bellrock Wind Farm Infrastructure.
Stoura	Offshore Wind Farm	Planning (Scoping Request Submitted)	392	2030 – 2034	2035	2	Potential temporal overlap with the construction, O&M and decommissioning phases of the Bellrock Wind Farm Infrastructure.
Stromar	Offshore Wind Farm	Planning (Scoping Request Submitted)	200	2029 – 2033	2034	2	Potential temporal overlap with the construction, O&M and decommissioning phases of the Bellrock Wind Farm Infrastructure.
The Morven Offshore Wind Farm (North and South)	Offshore Wind Farm	Planning (Scoping Request Submitted)	35	2028 – 2030	2031	2	Potential temporal overlap with the construction, O&M and decommissioning phases of the Bellrock Wind Farm Infrastructure.

Plan/Project	Type of Development	Status at the Time of Assessment (i.e. Application Submitted, or Consented, etc.)	Closest Distance from Bellrock WFDA (km)	Date of Construction	Date of Operation	Tier	Rationale
Cedar	Offshore Wind Farm	Pre-planning	21	N/A	N/A	3	Potential temporal overlap with the construction, O&M and decommissioning phases of the Bellrock Wind Farm Infrastructure.
Eastern Green Link 3	Subsea cable	In Planning (Scoping Request Submitted)	32	2028 – 2033	2034	2	Potential temporal overlap with the construction, O&M and decommissioning phases of the Bellrock Wind Farm Infrastructure.
Eastern Green Link 4	Subsea cable	In Planning (Scoping Request Submitted)	106	N/A	N/A	2	Potential temporal overlap with the construction, O&M and decommissioning phases of the Bellrock Wind Farm Infrastructure.
Eastern Green Link 5	Subsea cable	In Planning (Scoping Request Submitted)	30	2030 – 2035	2036	2	Potential temporal overlap with the construction, O&M and decommissioning phases of the Bellrock Wind Farm Infrastructure.
Ossian Wind Farm Export Cable	Subsea cable	In Planning (Scoping Request Submitted)	29	2029 – 2032	2033	2	Potential temporal overlap with the construction, O&M and decommissioning phases of the Bellrock Wind Farm Infrastructure.

Notes:

The Bellrock Wind Farm Infrastructure construction phase includes one year of site preparation works and is therefore anticipated to run from 2030 to 2037.

## 11.9.3 Assessment of Cumulative Effects

### 11.9.3.1 Potential Cumulative Effects During Construction

#### 11.9.3.1.1 *Impact 1: Reduction in Access to, or Exclusion from Established Fishing Grounds*

261. Projects from Tiers 1, 2 and 3 were included in this assessment, together with Marine Protected Areas (MPAs), which were included in Tier 2.

##### 11.9.3.1.1.1 *Sensitivity*

262. All commercial fishing fleets are sensitive to incremental loss of access to fishing grounds.

263. All commercial fishing fleets are deemed to be of high vulnerability, medium recoverability and medium-high value. The sensitivity of the receptor is therefore, considered to be **medium**.

##### 11.9.3.1.1.2 *Magnitude of Cumulative Impact*

264. The Tier 1 assessment included a range of fixed and floating offshore wind farms and associated offshore export cables; Tier 2 also includes fixed foundation and floating offshore wind farms together with the network of MPAs.

265. The range of offshore wind farms are located in areas where commercial fishing activity (including scallop dredging, demersal otter trawling, pelagic trawling and potting) is spread across the wider seabed, with spatially variable levels of effort reflecting the distribution and importance of particular fishing grounds. The extent to which fishing may resume within and around offshore wind farm areas is not uniform and will depend on the type of development (e.g. fixed-bottom substructures compared to floating substructures, including associated SKS and inter-array cable infrastructure) and the operational importance of the development area to different fleets. Overall, commercial fishing fleets have adapted to the presence of offshore wind farms, and MPAs, and adjusted practices to allow fishing businesses to continue operating to some extent (ABPmer, 2022).

266. Fisheries administrators across the UK are at various stages of implementing management measures within MPAs. In 2024, the MMO implemented byelaws with prohibitions on bottom contact fishing gear within 13 MPAs (MMO, 2024).

267. In Scotland, fisheries management measures have been implemented progressively across the MPA network. An initial phase of measures for a number of inshore MPAs was introduced through Marine Conservation Orders and inshore fisheries orders. More recently, fisheries management measures for offshore MPAs were implemented through the Offshore Fishing (Prohibition of Fishing Methods) (Scotland) Order 2025, which came into force in October 2025. Further fisheries management measures for remaining inshore MPAs and Priority Marine Features are under development and are expected to be subject to future consultation.

268. Overall, there is potential for incremental loss of grounds to occur from Tier 1 and 2 floating offshore wind farms and nature conservation management. Detailed mitigation packages for all Tier 1 and 2 floating offshore wind farms are not yet known or developed and therefore the risk of significant cumulative impacts to loss of access remains for fishing fleets that typically operate across wider regional areas when targeting specific species.

269. The cumulative impact was predicted to be of international spatial extent, medium term duration, continuous and low reversibility. It is predicted that the impact will affect the receptor directly. Given the loss of access posed by the Tier 1 and 2 floating offshore wind farms, together with the anticipated introduction of fisheries management within the MPA network, the magnitude was therefore, considered to be **medium** for Tier 1 and 2 projects for demersal otter trawl TR2: Nephrops. The contribution of project-alone mitigation measures relevant to the demersal trawl fleet is recognised across Tier 1 and Tier 2 projects, including changes to project boundaries (Caledonia South and Green Volt), the implementation of obstacle-free zones (Muir Mhor and Aspen), fisheries liaison, and disruption agreements. Collectively, these measures reduce the extent and severity of effects at the project scale and help to minimise the cumulative burden on affected fleets, particularly where access to key fishing areas is retained and adaptive management approaches are in place.
270. For all other fleets, including demersal trawl TR1: Whitefish, demersal seine, dredge, beam trawl, pelagic trawl, potting and handline, the contribution of the Bellrock WDA to reduced access was not expected to increase the cumulative effect beyond that assessed for the Project alone. Accordingly, the magnitude of reduced access remains consistent with the project-alone assessment and was considered to be **low** for UK demersal otter trawl TR1: Whitefish, demersal seine, pelagic trawl and purse seine and potting; and negligible for scallop dredge, beam trawl and gear with hooks.
271. The inclusion of Tier 3 projects does not raise the magnitude assessment for Tiers 1 and 2.

#### **11.9.3.1.1.3 Significance of Cumulative Effect**

272. UK demersal otter trawl TR2: Nephrops: the magnitude of the cumulative impact was deemed to be **medium** and the sensitivity of the receptor is **medium**. The cumulative effect was therefore assessed to be of **moderate adverse** significance, which is **significant** in EIA terms.
273. UK demersal trawl TR1: Whitefish, UK demersal seine, UK and non-UK pelagic trawl, UK potting: the magnitude of the cumulative impact was deemed to be **low** and the sensitivity of the receptor was **medium**. The Cumulative Effect was therefore assessed to be of **minor adverse** significance, which is **not significant** in EIA terms.
274. UK beam trawl, UK scallop dredge and UK gear with hooks: the magnitude of the cumulative impact was deemed to be **negligible** and the sensitivity of the receptor was **medium**. The Cumulative Effect was therefore assessed to be of **negligible** significance, which is **not significant** in EIA terms.

#### **11.9.3.1.2 Impact 2: Displacement Leading to Gear Conflict and Increased Fishing Pressure on Adjacent Grounds**

##### **11.9.3.1.2.1 Sensitivity**

275. All commercial fishing fleets are sensitive to displacement into other areas and are deemed to be of high vulnerability and medium recoverability. The sensitivity of the receptor was therefore, considered to be **medium**.

#### 11.9.3.1.2.2 *Magnitude of Cumulative Impact*

276. Displacement during construction (and any associated potential for gear conflict or increased fishing pressure) is directly linked to the extent of reduced access to fishing grounds (i.e. where reduced access is limited, displacement effects are correspondingly limited). For all fleets assessed, the contribution of the Bellrock Wind Farm Infrastructure to cumulative displacement effects in combination with Tier 1 and Tier 2 projects was not expected to increase the magnitude of displacement beyond that identified in the project-alone assessment. This reflects the relatively small spatial constraint represented by the Bellrock WFDA within the wider operating ranges of the relevant fleets, the availability of alternative grounds that are already routinely utilised, and the expectation that any adjustments in effort distribution would occur within normal patterns of intra-seasonal and inter-annual variation rather than through a step-change relocation.
277. The cumulative displacement impact was predicted to be of regional to international spatial extent (reflecting the mobility of some fleets), medium-term in duration, intermittent to periodic in nature during construction, and of low reversibility at the local scale while construction activities are ongoing. The impact was expected to act directly on receptors; however, any displacement is anticipated to be absorbed through incremental redistribution of effort on grounds already worked by the same vessels, with negligible potential for meaningful increases in pressure or gear conflict. Accordingly, the magnitude of cumulative displacement during construction was considered to be **low** adverse for Tier 1 and Tier 2 projects for all fleets.
278. The inclusion of Tier 3 projects does not raise the magnitude assessment for Tiers 1 and 2.

#### 11.9.3.1.2.3 *Significance of Cumulative Effect*

279. All fleets: the magnitude of the cumulative impact was deemed to be **low** and the sensitivity of the receptor was **medium**. The cumulative effect was therefore assessed to be of **minor adverse** significance, which is **not significant** in EIA terms.

### 11.9.3.1.3 *Impact 3: Disturbance of Commercially Important Fish and Shellfish Resources Leading to Displacement or Disruption of Fishing Activity*

#### 11.9.3.1.3.1 *Sensitivity*

280. All commercial fishing fleets are sensitive to displacement of their target resource.
281. All commercial fishing fleets were deemed to be of high vulnerability, medium recoverability and medium-high value. The sensitivity of the receptor was therefore, considered to be **medium**.

#### 11.9.3.1.3.2 *Magnitude of Cumulative Impact*

282. The cumulative effects for fish and shellfish ecology have been assessed in **Chapter 8 Fish and Shellfish Ecology (Volume II)**, covering the following effects during the construction phase:
- Physical disturbance and temporary habitat loss;
  - Increased suspended sediment concentrations and sediment re-deposition; and
  - Underwater noise and vibration.

283. The cumulative effects of the above cumulative impacts were determined to range from **negligible** to **minor adverse** and therefore are **not significant** in EIA terms.
284. Overall, cumulative effects on fish and shellfish ecology during construction were assessed to be of negligible to minor adverse residual significance. Therefore, the magnitude of effect to commercial fisheries resources was assessed as low adverse for all commercial fishery fleets. The Tier 2 and Tier 3 projects was not considered to raise the magnitude of impact beyond what is assessed for Tier 1, summarised as low for all commercial fishing fleets. This is due to any effects being highly localised to specific projects and not considered to result in any effect detectable at species stock levels.

#### *11.9.3.1.3.3 Significance of Cumulative Effect*

285. All fleets: the magnitude of the cumulative impact was deemed to be **low** and the sensitivity of the receptor was **medium**. The cumulative effect was therefore assessed to be of **minor adverse** significance, which is **not significant** in EIA terms.

### **11.9.3.2 Potential Cumulative Effects During Operation and Maintenance**

#### ***11.9.3.2.1 Impact 1: Reduction in Access to, or Exclusion from Established Fishing Grounds***

286. Over time, commercial fishing fleets are expected to adjust to the presence of offshore wind farms and, for certain gears, adapt to operate within fixed bottom wind farms. However, given the inclusion of floating offshore wind farm projects within Tiers 1, 2 and 3, together with MPAs included at Tier 2, the effects of O&M activities are expected to be the same or similar to the effects from construction, summarised as moderate adverse significance for UK demersal otter trawl TR2: Nephrops; minor adverse significance for demersal otter trawl TR1: Whitefish, demersal seine, potting and pelagic trawl and negligible for all other fleets.
287. To support long-term coexistence and better understand the evolving interaction between offshore wind and fisheries at a broader scale, the Applicant is also committed to participating in a Regional Commercial Fisheries Working Group and supporting regional-scale monitoring initiatives. These measures will contribute to an improved evidence base and facilitate more coordinated, adaptive management approaches across the sector, helping to ensure that cumulative effects on commercial fisheries are monitored, communicated, and addressed in a transparent and collaborative manner.
288. It is recognised, however, that these measures do not materially reduce the overall cumulative significance, which therefore remains significant for the UK demersal trawl TR2: Nephrops fleet due to the combined spatial and temporal extent of effects across multiple projects and management measures.

#### ***11.9.3.2.2 Impact 2: Displacement Leading to Gear Conflict and Increased Fishing Pressure on Adjacent Grounds***

289. Over time, commercial fishing fleets are expected to adjust to the presence of offshore wind farms and for displacement effects to stabilise. However, given the inclusion of floating offshore wind farm projects within Tiers 1, 2 and 3, together with MPAs included at Tier 2, the level of displacement has the potential to have long term effects based on continuous competition for

fishing grounds. The effects of O&M activities were expected to be the same or similar to the effects from construction, summarised as minor adverse significance for all fleets.

### **11.9.3.2.3 Impact 3: Disturbance of Commercially Important Fish and Shellfish Resources Leading to Displacement or Disruption of Fishing Activity**

290. The cumulative effects for fish and shellfish ecology have been assessed in **Chapter 8: Fish and Shellfish Ecology (Volume II)**, covering the following effects during the O&M phase:

- Physical disturbance and temporary habitat loss;
- Increased suspended sediment concentrations and sediment re-deposition;
- EMFs; and
- Permanent habitat loss.

291. Overall cumulative effects on fish and shellfish ecology during O&M were assessed as **negligible** to **minor** adverse significance, and **not significant** in EIA terms. Therefore, the magnitude of effect to commercial fisheries resources was assessed as **low** for all commercial fishery fleets.

292. The Tier 2 and Tier 3 projects are not considered to raise the magnitude of impact beyond what is assessed for Tier 1, summarised as **low** for all commercial fishing fleets. This is due to any effects being highly localised to specific projects and not considered to result in any effect detectable at species stock levels.

### **11.9.3.3 Potential Cumulative Effects During Decommissioning**

293. The effects of decommissioning activities were expected to be the same or similar to the effects from construction for all cumulative effects.

### **11.9.3.4 Summary of Cumulative Effects**

294. The CEA concluded that only a limited subset of commercial fisheries impacts have the potential to interact cumulatively across other plans and projects, because many project-only impacts are localised and temporary. The cumulative study area was defined at a North Sea scale for most fleets (and UK-wide for scallop dredging, noting scallop dredge grounds are not identified within the Bellrock WFDA). Screening then scoped in three impact pathways for all phases where there is plausible spatial and temporal overlap with other developments: (i) reduction in access to, or exclusion from, established fishing grounds; (ii) displacement leading to gear conflict and increased fishing pressure on adjacent grounds; and (iii) disturbance to commercially important fish and shellfish resources leading to disruption of fishing activity. Other effects such as interference from project vessel movements, snagging risk and additional steaming were screened out as highly localised, with negligible additive influence at the scale of the cumulative study area.

295. Cumulative loss/restriction of access was assessed as moderate adverse (**significant**) for the UK demersal otter trawl fishery targeting Nephrops (TR2) and negligible to minor adverse, and therefore **not significant**, for all other fleets during the construction, O&M and decommissioning phase. Cumulative displacement effects and cumulative effects on commercially important fish and shellfish resource across the construction, O&M, and decommissioning phases were assessed as **not significant**.

## 11.10 Transboundary, Inter-related and Interacting Impacts

### 11.10.1 Transboundary Impacts

296. Transboundary effects arise when impacts from a development with one EEA State affects the environment of another EEA State(s). A screening of transboundary effects has been carried out, which identified potential for transboundary effects to occur in relation to commercial fisheries.
297. The potential transboundary impacts screened into the assessment for commercial fisheries are:
- Effects on commercial fishing fleets as a result of impacts from the Bellrock WFDA on commercial fish stocks in the waters of EEA States; and
  - Effects on commercial fishing fleets from all EEA countries as a result of constraints on foreign commercial fishing activities operating in the vicinity of the Bellrock WFDA. These effects may include reduction in access to fishing grounds and potential displacement of fishing effort from the Bellrock WFDA to alternative fishing grounds in EEA States, which will have direct implications to that fishing ground.
298. Effects on biological resources could occur over a range of ten to 100 km from the project and could therefore interact with Norway, as the only EEA state within this distance. Based on the minor residual significance of disruption to commercial species during all phases of the project, it is expected that the impact on stocks in the Norwegian EEZ will be negligible (not significant). Therefore, the potential transboundary impact of effects on commercial fish stocks in the waters of other EEA States on commercial fisheries is concluded to be **negligible (not significant)** in EIA terms.
299. Effects on commercial fishing fleets could occur over a range of 100s of kms from the Bellrock WFDA (affecting fleets from other states that operate in the vicinity of the Bellrock WFDA) and could therefore interact with the following EEA states: the Netherlands, Germany, Belgium, France, Denmark and Norway. Effects on these foreign commercial fishing fleets from EEA states, in terms of reduction in access to fishing grounds and displacement into alternative grounds including other EEZs, have therefore been intrinsically considered throughout the commercial fisheries EIA process and are consistent to those presented in the impact assessment and cumulative effects assessment, specifically relative to non-UK pelagic trawl fleets.

### 11.10.2 Inter-relationships

300. **Table 11.16** below provides a summary of the key inter-relationships between commercial fisheries and other technical chapters and indicates where those issues have been addressed in the relevant Chapters.

Table 11.16: Commercial Fisheries Inter-relationships

Topic and Description	Related Chapter(s)	Where Addressed in This Chapter	Rationale
<b>All Phases</b>			
<b>Effects of changes to fish ecology on fisheries:</b> Changes to fish distribution, abundance, or behaviour due to underwater noise, vibration, EMF, or habitat disturbance may affect target species and fishing success.	<b>Chapter 8: Fish and Shellfish Ecology (Volume II)</b>	Sections describing Impacts C3, O3 and D3: Disturbance of commercially important fish and shellfish resources leading to displacement or disruption of fishing activity.	Fish ecology findings directly inform assessment of fisheries impacts, since effects on fish stocks or habitats translate into socioeconomic and operational impacts on fishers. The fish and shellfish ecology assessment concluded <b>negligible to minor significance</b> , informing corresponding commercial fisheries conclusions
<b>Underwater noise, vibration, and seabed disturbance:</b> Physical pressures influencing fish and shellfish resources and indirectly affecting fishing grounds.	<b>Chapter 8: Fish and Shellfish Ecology (Volume II)</b>	Sections describing Impacts C3, O3 and D3: Disturbance of commercially important fish and shellfish resources leading to displacement or disruption of fishing activity.	Disturbance to benthic habitats and target species affects the availability and quality of fishing grounds: <ul style="list-style-type: none"> <li>The commercial fisheries assessment relies on the ecology chapter to establish biological linkages between project activities and resource changes.</li> </ul>
<b>Vessel traffic, navigation safety, and collision risks:</b> Increased vessel activity from construction, O&M, and decommissioning phases may interfere with fishing operations and access.	<b>Chapter 12: Shipping and Navigation (Volume II)</b>	Discussed in Impacts C4, O4, and D4: Increased vessel traffic leading to interference with fishing activity, and cross-referenced in embedded measures.	Vessel traffic, navigation safety, and collision risks: <ul style="list-style-type: none"> <li>Increased vessel activity from construction, O&amp;M, and decommissioning phases may interfere with fishing operations and access.</li> </ul>
<b>Safety Zones, lighting, and marking of structures:</b> Safety and visibility measures influence navigational safety for fishers and potential spatial displacement.	<b>Chapter 12: Shipping and Navigation (Volume II)</b>	Embedded measures including Safety Zones, LMP, and VMNSP.	Safety Zones, lighting, and marking of structures: <ul style="list-style-type: none"> <li>Safety and visibility measures influence navigational safety for fishers and potential spatial displacement.</li> </ul>

Topic and Description	Related Chapter(s)	Where Addressed in This Chapter	Rationale
<b>Cumulative spatial and operational impacts:</b> Combined loss of fishing grounds from multiple offshore developments and MPA management measures.	<b>Chapter 8: Fish and Shellfish Ecology (Volume II)</b> <b>Chapter 16: Socioeconomics, Tourism and Recreation (Volume II)</b>	Discussed in Section 11.9: Cumulative Effects.	Cumulative spatial and operational impacts: <ul style="list-style-type: none"> <li>Combined loss of fishing grounds from multiple offshore developments and MPA management measures.</li> </ul>
<b>Gear snagging and seabed obstruction risk:</b> Interaction between fishing gear and subsea infrastructure (cables, anchors).	<b>Chapter 12: Shipping and Navigation (Volume II)</b>	Addressed in Impacts C6, O6 and D6; snagging risk assessed jointly with navigation safety concerns.	Gear snagging and seabed obstruction risk: <ul style="list-style-type: none"> <li>Interaction between fishing gear and subsea infrastructure (cables, anchors).</li> </ul>

### 11.10.3 Interactions

301. The impacts identified and assessed in this Chapter have the potential to interact with each other. Areas of potential interaction between impacts are presented in **Table 11.17**, **Table 11.18**, and **Table 11.19** below. The impacts are assessed relative to each development phase (i.e. construction, O&M or decommissioning) to see if (for example) multiple construction impacts affecting the same receptor could increase the magnitude of impact upon that receptor.
302. Inter-relationships between potential impacts have been identified to ensure that the assessment of effects on commercial fisheries fully reflects the combined and interacting nature of Bellrock Wind Farm Infrastructure activities across all phases of development. Many of the individual impacts described within this Chapter are not discrete but rather are interdependent and occur concurrently or sequentially as a result of the same underlying Bellrock Wind Farm Infrastructure activities (for example, exclusion from fishing grounds leading to displacement, additional steaming, and gear interaction risk). These relationships are therefore an integral part of the impact pathways considered in the assessment. The inter-relationships have been qualitatively reviewed to identify how individual effects may influence or compound one another during construction, operation, and decommissioning. They have been explicitly accounted for within the impact assessment process and are considered fundamental and intrinsically linked to the nature of the identified impacts; therefore, they do not alter or increase the overall level of significance assigned to any of the assessed effects.
303. A subsequent lifetime assessment has been undertaken which considers the impact interactions identified and the potential for impacts to effect receptors relevant to this Chapter across all development phases (**Table 11.20**).
304. The lifetime assessment considers the cumulative and continuous nature of effects experienced across the construction, O&M, and decommissioning phases of the development. For UK demersal otter trawl vessels, the combined lifetime effect remains **moderate adverse**, reflecting the sustained but manageable loss of access to fishing grounds and the need for displacement

throughout the Bellrock Wind Farm Infrastructure's duration. Although these effects persist over the Bellrock Wind Farm Infrastructure's lifetime, they do not intensify beyond the highest phase-specific level, as fishing activity is expected to adapt to altered spatial conditions and utilise alternative grounds within and adjacent to existing fishing patterns. The long-term predictability of the exclusion area and implementation of mitigation measures, such as the **FMCP (Volume V)**, further limit escalation of significance.

305. For all other receptors, effects remain **minor adverse** throughout the Bellrock Wind Farm Infrastructure lifetime. The impacts identified during individual phases occur within an area of relatively low fishing activity and intensity and therefore do not compound to increase the overall significance, which remains minor due to the limited levels of use within the WFDA. These assessments reflect the fact that inter-relationships between effects have been fully considered and are intrinsic to the assessment process. Consequently, the lifetime significance of effects does not exceed that identified for any single phase of the development.

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Table 11.17: Potential Interaction Between Impacts - Construction

Potential Interaction Between Construction Impacts						
Impact	<b>C1: Reduction in Access to or Exclusion from Established Fishing Grounds within the Bellrock WFDA</b>	<b>C2: Displacement Leading to Gear Conflict and Increased Fishing Pressure on Adjacent Grounds</b>	<b>C3: Disturbance of Commercially Important Fish and Shellfish Resources Leading to Displacement or Disruption of Fishing Activity</b>	<b>C4: Increased Vessel Traffic Associated with the Bellrock Wind Farm Infrastructure within Fishing Grounds Leading to Interference with Fishing Activity</b>	<b>C5: Additional Steaming to Alternative Fishing Grounds for Vessels that would Otherwise Fish within the Bellrock WFDA</b>	<b>C6: Increased Snagging Risk, which could Result in loss or Damage to Fishing Gear</b>
<b>C1: Reduction in Access to or Exclusion from Established Fishing Grounds within the Bellrock WFDA</b>		Yes. Reduced access to fishing grounds displaces vessels, increasing effort and competition on adjacent areas.	Yes. Loss of fishing grounds may displace effort into areas where disturbed fish/shellfish resources are less available, compounding displacement.	Yes. Restricted access coincides with increased Bellrock WFDA related vessel presence, increasing navigational interference.	Yes. Loss of access may result in longer transits to alternative grounds.	Yes. Displaced effort may increase operations near Bellrock WFDA boundaries where snagging risk exists.
<b>C2: Displacement Leading to Gear Conflict and Increased Fishing Pressure on Adjacent Grounds</b>	Yes. Driven by loss of access (C1).		Yes. Increased fishing pressure on adjacent grounds may coincide with areas affected by fish disturbance.	Yes. Displaced fleets may encounter greater vessel traffic when navigating around construction zones.	Yes. Displacement to more distant grounds increases steaming requirements and operational costs.	Yes. Redistributed effort heightens interaction risk with Wind Farm Infrastructure.
<b>C3: Disturbance of Commercially Important Fish and Shellfish Resources Leading to Displacement or Disruption of Fishing Activity</b>	Yes. Disturbance outside the Bellrock WFDA can further limit catch opportunities for displaced fishers.	Yes. Resource disturbance on adjacent fishing grounds exacerbates gear conflict and pressure.		Yes. Resource movement and Bellrock WFDA related vessel activity combine to disrupt fishing operations.	Yes. Reduced catch efficiency drives longer steaming times to locate viable grounds, including exploratory fishing.	Indirect. Changes in resources may draw fishers closer to Wind Farm Infrastructure, increasing snagging risk.

<b>Potential Interaction Between Construction Impacts</b>						
<b>Impact</b>	<b>C1: Reduction in Access to or Exclusion from Established Fishing Grounds within the Bellrock WFDA</b>	<b>C2: Displacement Leading to Gear Conflict and Increased Fishing Pressure on Adjacent Grounds</b>	<b>C3: Disturbance of Commercially Important Fish and Shellfish Resources Leading to Displacement or Disruption of Fishing Activity</b>	<b>C4: Increased Vessel Traffic Associated with the Bellrock Wind Farm Infrastructure within Fishing Grounds Leading to Interference with Fishing Activity</b>	<b>C5: Additional Steaming to Alternative Fishing Grounds for Vessels that would Otherwise Fish within the Bellrock WFDA</b>	<b>C6: Increased Snagging Risk, which could Result in loss or Damage to Fishing Gear</b>
<b>C4: Increased Vessel Traffic Associated with the Bellrock Wind Farm Infrastructure within Fishing Grounds Leading to Interference with Fishing Activity</b>	Yes. May further restrict ability to fish within or near the Bellrock WFDA.	Yes. Vessel movements can disrupt newly concentrated fleets in adjacent areas.	Yes. Propeller wash and noise add to fish and shellfish disturbance.		Yes. Interference and delays extend trip times and fuel use.	Yes. Dense traffic increases entanglement or gear loss risk.
<b>C5: Additional Steaming to Alternative Fishing Grounds for Vessels that would Otherwise Fish within the Bellrock WFDA</b>	Yes. Loss of access necessitates longer transit routes.	Yes. Displacement to alternative fishing grounds increases fuel consumption and conflict potential.	Yes. Exploratory fishing for less-disturbed resources extends trip length and reduces efficiency.	Yes. Longer routes expose vessels to greater interaction with construction traffic.		Yes. Extended routes raise probability of gear encountering obstructions.
<b>C6: Increased Snagging Risk, which could Result in loss or Damage to Fishing Gear</b>	Yes. Restricted fishing space forces operations closer to infrastructure.	Yes. Displaced effort heightens interaction risk with subsea structures.	Yes. Changes in resources may attract fishing towards areas of higher snagging hazard.	Yes. Vessel movements increase entanglement risk.	Yes. Alternative routes may cross cable corridors or construction zones.	

Table 11.18: Potential Interaction Between Impacts - Operation and Maintenance

Potential Interaction Between O&M Impacts						
Impact	<b>O1: Reduction in Access to or Exclusion from Established Fishing Grounds within the Bellrock WFDA</b>	<b>O2: Displacement Leading to Gear Conflict and Increased Fishing Pressure on Adjacent Grounds</b>	<b>O3: Disturbance of Commercially Important Fish and Shellfish Resources Leading to Displacement or Disruption of Fishing Activity</b>	<b>O4: Increased Vessel Traffic Associated with the Bellrock WFDA within Fishing Grounds Leading to Interference with Fishing Activity</b>	<b>O5: Additional Steaming to Alternative Fishing Grounds for Vessels that would Otherwise Fish within the Bellrock WFDA</b>	<b>O6: Increased Snagging Risk, which could Result in loss or Damage to Fishing Gear</b>
<b>O1: Reduction in Access to or Exclusion from Established Fishing Grounds within the Bellrock WFDA</b>		Yes. Long-term exclusion maintains displacement and redistribution of effort.	Minor. Artificial reef effects may alter fish distribution and resource availability.	Yes. Restricted access overlaps with maintenance vessel activity near structures.	Yes. Long-term exclusion results in habitual longer transits to alternative grounds.	Yes. Fishing along Bellrock WFDA boundaries increases snagging risk.
<b>O2: Displacement Leading to Gear Conflict and Increased Fishing Pressure on Adjacent Grounds</b>	Yes. Caused by exclusion from Bellrock WFDA.		Yes. Concentrated effort may coincide with areas of ecological change (e.g. EMF effects).	Yes. Displaced vessels may operate near O&M traffic routes.	Yes. Alternative fishing locations increase steaming costs.	Yes. Redistribution elevates interaction risk with Wind Farm Infrastructure.
<b>O3: Disturbance of Commercially Important Fish and Shellfish Resources Leading to Displacement or Disruption of Fishing Activity</b>	Yes. Habitat colonisation or EMF could slightly influence target species.	Yes. Altered species availability reinforces displacement patterns.		Yes. Vessel noise and maintenance operations can add minor disturbance.	Yes. Reduced catch efficiency leads to longer trips.	Yes. Shifts in target species may move effort towards infrastructure.

Potential Interaction Between O&M Impacts						
Impact	O1: Reduction in Access to or Exclusion from Established Fishing Grounds within the Bellrock WFDA	O2: Displacement Leading to Gear Conflict and Increased Fishing Pressure on Adjacent Grounds	O3: Disturbance of Commercially Important Fish and Shellfish Resources Leading to Displacement or Disruption of Fishing Activity	O4: Increased Vessel Traffic Associated with the Bellrock WFDA within Fishing Grounds Leading to Interference with Fishing Activity	O5: Additional Steaming to Alternative Fishing Grounds for Vessels that would Otherwise Fish within the Bellrock WFDA	O6: Increased Snagging Risk, which could Result in loss or Damage to Fishing Gear
<b>O4: Increased Vessel Traffic Associated with the Bellrock WFDA within Fishing Grounds Leading to Interference with Fishing Activity</b>	Yes. Overlaps with reduced access areas, constraining fishing manoeuvrability.	Yes. Maintenance traffic may conflict with displaced fleets.	Yes. Occasional underwater noise contributes to fish disturbance.		Yes. Interference extends trip durations and delays.	Yes. Higher vessel density raises snagging or collision risks.
<b>O5: Additional Steaming to Alternative Fishing Grounds for Vessels that would Otherwise Fish within the Bellrock WFDA</b>	Yes. Exclusion drives sustained longer transit routes.	Yes. Cumulative fuel/time costs from displacement.	Yes. Searching for productive areas due to ecological change.	Yes. Avoidance of maintenance traffic extends routes.		Yes. Longer routes may cross existing cable corridors, increasing snagging exposure.
<b>O6: Increased Snagging Risk, which could Result in loss or Damage to Fishing Gear</b>	Yes. Subsea infrastructure limits gear deployment areas.	Yes. Displaced vessels working near Wind Farm Infrastructure face greater hazard.	Yes. Habitat enhancement (reefing) may attract fishing closer to structures.	Yes. Interaction with maintenance vessels adds navigation complexity.	Yes. Longer or altered routes increase potential snagging points.	

Table 11.19: Potential Interaction Between Impacts - Decommissioning

Potential Interaction Between Decommissioning Impacts						
Impact	D1: Reduction in Access to or Exclusion from Established Fishing Grounds within the Bellrock WFDA	D2: Displacement Leading to Gear Conflict and Increased Fishing Pressure on Adjacent Grounds	D3: Disturbance of Commercially Important Fish and Shellfish Resources Leading to Displacement or Disruption of Fishing Activity	D4: Increased Vessel Traffic Associated with the Bellrock WFDA within Fishing Grounds Leading to Interference with Fishing Activity	D5: Additional Steaming to Alternative Fishing Grounds for Vessels that would Otherwise Fish within the Bellrock WFDA	D6: Increased Snagging Risk, which could Result in loss or Damage to Fishing Gear
D1: Reduction in Access to or Exclusion from Established Fishing Grounds within the Bellrock WFDA		Yes. Temporary exclusion causes displacement of fishing effort.	Yes. Disturbance of target species may exacerbate displacement.	Yes. Increased decommissioning vessel traffic further limits access.	Yes. Loss of access drives longer steaming distances.	Yes. Decommissioning debris and partial removals may heighten snagging risk.
D2: Displacement Leading to Gear Conflict and Increased Fishing Pressure on Adjacent Grounds	Yes. Caused by restricted access.		Yes. Fish disturbance in adjacent areas can reduce available grounds.	Yes. Displaced fleets may encounter interference from decommissioning vessels.	Yes. Displacement often leads to greater travel time and cost.	Yes. Redistribution increases likelihood of gear snagging near removed infrastructure.
D3: Disturbance of Commercially Important Fish and Shellfish Resources Leading to Displacement or Disruption of Fishing Activity	Yes. Turbidity and noise may limit catchability in the area.	Yes. Effects effort and competition.		Yes. Vessel activity adds to disturbance.	Yes. Reduced catch rates prompt longer steaming to alternative grounds.	Indirect. Disturbed fish movement may shift effort toward more hazardous areas.

<b>Potential Interaction Between Decommissioning Impacts</b>						
<b>Impact</b>	<b>D1: Reduction in Access to or Exclusion from Established Fishing Grounds within the Bellrock WFDA</b>	<b>D2: Displacement Leading to Gear Conflict and Increased Fishing Pressure on Adjacent Grounds</b>	<b>D3: Disturbance of Commercially Important Fish and Shellfish Resources Leading to Displacement or Disruption of Fishing Activity</b>	<b>D4: Increased Vessel Traffic Associated with the Bellrock WFDA within Fishing Grounds Leading to Interference with Fishing Activity</b>	<b>D5: Additional Steaming to Alternative Fishing Grounds for Vessels that would Otherwise Fish within the Bellrock WFDA</b>	<b>D6: Increased Snagging Risk, which could Result in loss or Damage to Fishing Gear</b>
<b>D4: Increased Vessel Traffic Associated with the Bellrock Wind Farm Infrastructure within Fishing Grounds Leading to Interference with Fishing Activity</b>	Yes. Restricts access to remaining fishable areas.	Yes. Vessel routes intersect displaced fleet paths.	Yes. Adds to resource disturbance through underwater noise and sediment release.		Yes. Avoiding heavy traffic extends trips and fuel costs.	Yes. Increased marine activity raises entanglement risk.
<b>D5: Additional Steaming to Alternative Fishing Grounds for Vessels that would Otherwise Fish within the Bellrock WFDA</b>	Yes. Loss of access drives longer trips.	Yes. Competition on adjacent grounds lengthens routes.	Yes. Changes in catch rates from disturbed fish stocks extend fishing duration.	Yes. Navigating around decommissioning zones adds distance.		Yes. Alternate routes may overlap with residual seabed obstructions.
<b>D6: Increased Snagging Risk, which could Result in loss or Damage to Fishing Gear</b>	Yes. Debris or partial removals near former turbine sites constrain fishing.	Yes. Concentrated effort near remaining subsea structures increases risk.	Yes. Displacement of fish may bring vessels closer to snagging areas.	Yes. Interaction with decommissioning vessels adds hazard.	Yes. Diversion and new routes increase contact with other existing infrastructure.	

**Table 11.20: Potential Interactions Between Impacts - Phase and Lifetime Assessment**

<b>Highest Significance of Effect Level</b>					
<b>Receptor</b>	<b>Construction</b>	<b>O&amp;M</b>	<b>Decommissioning</b>	<b>Phase Assessment</b>	<b>Lifetime Assessment</b>
UK demersal otter trawl TR1: Whitefish	Minor adverse	Minor adverse	Minor adverse	Minor adverse	Minor adverse
UK demersal otter trawl TR2: Nephrops	Moderate adverse for C1: Loss of access	Moderate adverse for O1: Loss of access	Moderate adverse for D1: Loss of access	Moderate adverse for impact 1: Loss of access	Moderate adverse for impact 1: Loss of access
UK demersal seine	Minor adverse	Minor adverse	Minor adverse	Minor adverse	Minor adverse
UK pelagic trawl and purse seine	Minor adverse	Minor adverse	Minor adverse	Minor adverse	Minor adverse
Non-UK pelagic trawl and purse seine	Minor adverse	Minor adverse	Minor adverse	Minor adverse	Minor adverse
UK scallop dredge	Minor adverse	Minor adverse	Minor adverse	Minor adverse	Minor adverse
UK beam trawl	Minor adverse	Minor adverse	Minor adverse	Minor adverse	Minor adverse
UK potting	Minor adverse	Minor adverse	Minor adverse	Minor adverse	Minor adverse
UK gear with hooks	Minor adverse	Minor adverse	Minor adverse	Minor adverse	Minor adverse

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## 11.11 Summary

306. The assessment of potential effects on commercial fisheries arising from the Bellrock Wind Farm Infrastructure has been undertaken in accordance with relevant legislation, guidance, and best practice standards, including FLOWW, Seafish, and Scottish Government guidance (**Table 11.1**). The assessment considers all phases of the Bellrock Wind Farm Infrastructure, including construction, O&M, and decommissioning, and integrates the results of fisheries consultation, baseline data, and inter-relationships between Bellrock Wind Farm Infrastructure activities.
307. The commercial fisheries baseline indicates that fishing effort within the Bellrock WFDA is focused on activity by demersal otter trawl fleets targeting Nephrops on the eastern portion of the WFDA and whitefish fisheries and operating regionally out of ports such as Aberdeen, Peterhead and Fraserburgh. Activity by demersal seine gear is also noted, to a lesser degree, targeting whitefish species in the central and eastern portions of the Bellrock WFDA. Localised use by potting and scallop dredge fleets is limited, and pelagic fleets largely transit through, rather than fish within, the area.
308. Across all phases, the principal potential impacts on commercial fisheries include temporary and long-term loss of access to established fishing grounds, displacement of fishing effort, disturbance to fish and shellfish resources, increased vessel traffic and gear conflict, longer steaming times to alternative grounds, and snagging risk from subsea infrastructure. Mitigation and management measures, including a FMMCP (**Volume V**), and participation in regional fisheries working groups, have been embedded to minimise potential effects and support coexistence between the Bellrock Wind Farm Infrastructure and the fishing industry.
309. For most receptors, effects are assessed as **minor adverse** and **not significant** in EIA terms. The exception is the UK demersal otter trawl fleet, targeting Nephrops (TR2), for which a **moderate adverse** effect, related to loss of access, is predicted due to greater spatial overlap with the eastern portion of the Bellrock WFDA during all phases of the Bellrock Wind Farm Infrastructure. Whilst the assessment identifies a moderate adverse effect on the Nephrops demersal otter trawl fishery based on the standard EIA magnitude and sensitivity matrix (and therefore classifies the effect as significant), this represents a precautionary outcome. In practice, through ongoing engagement with affected fishers and implementation of fisheries liaison, monitoring measures, and ongoing review of the construction programme, vessel movements, and working practices, the effect experienced by the Nephrops demersal otter trawl fishery is anticipated to be lower and not significant.
310. A summary of the overall impact assessment is provided in **Table 11.21**.

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**Table 11.21: Summary of Potential Effects for Commercial Fisheries**

Potential Impact	Receptor(s)	Sensitivity	Magnitude of Impact	Significance of Effect	Secondary Mitigation	Residual Significance of Effect	Cumulative Residual Significance of Effect
<b>Construction</b>							
C1: Reduction in access to, or exclusion from established fishing grounds within the Bellrock WFDA	UK demersal otter trawl TR1: Whitefish	Medium	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK demersal otter trawl TR2: Nephrops	Medium	Medium	Moderate adverse	None	Moderate adverse (significant)	Moderate adverse (significant)
	UK demersal seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK pelagic trawl and purse seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	Non-UK pelagic trawl and purse seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK scallop dredge	Low	Negligible	Negligible	None	Negligible adverse (not significant)	Negligible adverse (not significant)
	UK beam trawl	Low	Negligible	Negligible	None	Negligible adverse (not significant)	Negligible adverse (not significant)
	UK potting	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK gear with hooks	Low	Negligible	Negligible	None	Negligible adverse (not significant)	Negligible adverse (not significant)

Potential Impact	Receptor(s)	Sensitivity	Magnitude of Impact	Significance of Effect	Secondary Mitigation	Residual Significance of Effect	Cumulative Residual Significance of Effect
C2: Displacement leading to gear conflict and increased fishing pressure on adjacent grounds	UK demersal otter trawl	Medium	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK demersal seine	Medium	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK pelagic trawl and purse seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	Non-UK pelagic trawl and purse seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK scallop dredge	Medium	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK beam trawl	Medium	Negligible	Negligible	None	Negligible adverse (not significant)	Minor adverse (not significant)
	UK potting	Medium	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK gear with hooks	Negligible	Negligible	Negligible	None	Negligible adverse (not significant)	Minor adverse (not significant)

Potential Impact	Receptor(s)	Sensitivity	Magnitude of Impact	Significance of Effect	Secondary Mitigation	Residual Significance of Effect	Cumulative Residual Significance of Effect
C3: Disturbance of commercially important fish and shellfish resources leading to displacement or disruption of fishing activity	UK demersal otter trawl	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK demersal seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK pelagic trawl and purse seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	Non-UK pelagic trawl and purse seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK scallop dredge	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK beam trawl	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK potting	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK gear with hooks	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)

Potential Impact	Receptor(s)	Sensitivity	Magnitude of Impact	Significance of Effect	Secondary Mitigation	Residual Significance of Effect	Cumulative Residual Significance of Effect
C4: Increased vessel traffic associated with the Bellrock Wind Farm Infrastructure within fishing grounds leading to interference with fishing activity	UK demersal otter trawl	Low	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK demersal seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK pelagic trawl and purse seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	Non-UK pelagic trawl and purse seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK scallop dredge	Low	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK beam trawl	Low	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK potting	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK gear with hooks	Low	Low	Minor adverse	None	Minor adverse (not significant)	N/A

Potential Impact	Receptor(s)	Sensitivity	Magnitude of Impact	Significance of Effect	Secondary Mitigation	Residual Significance of Effect	Cumulative Residual Significance of Effect
C5: Additional steaming to alternative fishing grounds for vessels that would otherwise fish within the Bellrock WFDA	UK demersal otter trawl	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK demersal seine	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK pelagic trawl and purse seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	Non-UK pelagic trawl and purse seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK scallop dredge	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK beam trawl	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK potting	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK gear with hooks	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A

Potential Impact	Receptor(s)	Sensitivity	Magnitude of Impact	Significance of Effect	Secondary Mitigation	Residual Significance of Effect	Cumulative Residual Significance of Effect
C6: Increased snagging risk, which could result in loss or damage to fishing gear	UK demersal otter trawl	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK demersal seine	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK pelagic trawl and purse seine	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	Non-UK pelagic trawl and purse seine	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK scallop dredge	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK beam trawl	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK potting	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK gear with hooks	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A

Potential Impact	Receptor(s)	Sensitivity	Magnitude of Impact	Significance of Effect	Secondary Mitigation	Residual Significance of Effect	Cumulative Residual Significance of Effect
<b>Operation and Maintenance</b>							
O1: Reduction in access to, or exclusion from established fishing grounds within the Bellrock WFDA	UK demersal otter trawl TR1: Whitefish	Medium	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK demersal otter trawl TR2: Nephrops	Medium	Medium	Moderate adverse	None	Moderate adverse (significant)	Moderate adverse (significant)
	UK demersal seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK pelagic trawl and purse seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	Non-UK pelagic trawl and purse seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK scallop dredge	Low	Negligible	Negligible	None	Negligible adverse (not significant)	Negligible adverse (not significant)
	UK beam trawl	Low	Negligible	Negligible	None	Negligible adverse (not significant)	Negligible adverse (not significant)
	UK potting	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK gear with hooks	Low	Negligible	Negligible	None	Negligible adverse (not significant)	Negligible adverse (not significant)

Potential Impact	Receptor(s)	Sensitivity	Magnitude of Impact	Significance of Effect	Secondary Mitigation	Residual Significance of Effect	Cumulative Residual Significance of Effect
O2: Displacement leading to gear conflict and increased fishing pressure on adjacent grounds	UK demersal otter trawl	Medium	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK demersal seine	Medium	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK pelagic trawl and purse seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	Non-UK pelagic trawl and purse seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK scallop dredge	Medium	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK beam trawl	Medium	Negligible	Negligible	None	Negligible adverse (not significant)	Minor adverse (not significant)
	UK potting	Medium	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK gear with hooks	Negligible	Negligible	Negligible	None	Negligible adverse (not significant)	Minor adverse (not significant)

Potential Impact	Receptor(s)	Sensitivity	Magnitude of Impact	Significance of Effect	Secondary Mitigation	Residual Significance of Effect	Cumulative Residual Significance of Effect
O3: Disturbance of commercially important fish and shellfish resources leading to displacement or disruption of fishing activity	UK demersal otter trawl	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK demersal seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK pelagic trawl and purse seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	Non-UK pelagic trawl and purse seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK scallop dredge	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK beam trawl	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK potting	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK gear with hooks	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)

Potential Impact	Receptor(s)	Sensitivity	Magnitude of Impact	Significance of Effect	Secondary Mitigation	Residual Significance of Effect	Cumulative Residual Significance of Effect
O4: Increased vessel traffic associated with the Bellrock Wind Farm Infrastructure within fishing grounds leading to interference with fishing activity	UK demersal otter trawl	Low	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK demersal seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK pelagic trawl and purse seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	Non-UK pelagic trawl and purse seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK scallop dredge	Low	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK beam trawl	Low	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK potting	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK gear with hooks	Low	Low	Minor adverse	None	Minor adverse (not significant)	N/A

Potential Impact	Receptor(s)	Sensitivity	Magnitude of Impact	Significance of Effect	Secondary Mitigation	Residual Significance of Effect	Cumulative Residual Significance of Effect
O5: Additional steaming to alternative fishing grounds for vessels that would otherwise fish within the Bellrock WFDA	UK demersal otter trawl	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK demersal seine	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK pelagic trawl and purse seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	Non-UK pelagic trawl and purse seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK scallop dredge	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK beam trawl	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK potting	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK gear with hooks	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A

Potential Impact	Receptor(s)	Sensitivity	Magnitude of Impact	Significance of Effect	Secondary Mitigation	Residual Significance of Effect	Cumulative Residual Significance of Effect
O6: Increased snagging risk, which could result in loss or damage to fishing gear	UK demersal otter trawl	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK demersal seine	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK pelagic trawl and purse seine	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	Non-UK pelagic trawl and purse seine	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK scallop dredge	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK beam trawl	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK potting	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK gear with hooks	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A

Potential Impact	Receptor(s)	Sensitivity	Magnitude of Impact	Significance of Effect	Secondary Mitigation	Residual Significance of Effect	Cumulative Residual Significance of Effect
<b>Decommissioning</b>							
D1: Reduction in access to, or exclusion from established fishing grounds within the Bellrock WFDA	UK demersal otter trawl TR1: Whitefish	Medium	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK demersal otter trawl TR2: Nephrops	Medium	Medium	Moderate adverse	None	Moderate adverse (significant)	Moderate adverse (significant)
	UK demersal seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK pelagic trawl and purse seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	Non-UK pelagic trawl and purse seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK scallop dredge	Low	Negligible	Negligible	None	Negligible adverse (not significant)	Negligible adverse (not significant)
	UK beam trawl	Low	Negligible	Negligible	None	Negligible adverse (not significant)	Negligible adverse (not significant)
	UK potting	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK gear with hooks	Low	Negligible	Negligible	None	Negligible adverse (not significant)	Negligible adverse (not significant)

Potential Impact	Receptor(s)	Sensitivity	Magnitude of Impact	Significance of Effect	Secondary Mitigation	Residual Significance of Effect	Cumulative Residual Significance of Effect
D2: Displacement leading to gear conflict and increased fishing pressure on adjacent grounds	UK demersal otter trawl	Medium	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK demersal seine	Medium	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK pelagic trawl and purse seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	Non-UK pelagic trawl and purse seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK scallop dredge	Medium	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK beam trawl	Medium	Negligible	Negligible	None	Negligible adverse (not significant)	Minor adverse (not significant)
	UK potting	Medium	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK gear with hooks	Negligible	Negligible	Negligible	None	Negligible adverse (not significant)	Minor adverse (not significant)

Potential Impact	Receptor(s)	Sensitivity	Magnitude of Impact	Significance of Effect	Secondary Mitigation	Residual Significance of Effect	Cumulative Residual Significance of Effect
D3: Disturbance of commercially important fish and shellfish resources leading to displacement or disruption of fishing activity	UK demersal otter trawl	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK demersal seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK pelagic trawl and purse seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	Non-UK pelagic trawl and purse seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK scallop dredge	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK beam trawl	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK potting	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)
	UK gear with hooks	Low	Low	Minor adverse	None	Minor adverse (not significant)	Minor adverse (not significant)

Potential Impact	Receptor(s)	Sensitivity	Magnitude of Impact	Significance of Effect	Secondary Mitigation	Residual Significance of Effect	Cumulative Residual Significance of Effect
D4: Increased vessel traffic associated with the Bellrock Wind Farm Infrastructure within fishing grounds leading to interference with fishing activity	UK demersal otter trawl	Low	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK demersal seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK pelagic trawl and purse seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	Non-UK pelagic trawl and purse seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK scallop dredge	Low	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK beam trawl	Low	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK potting	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK gear with hooks	Low	Low	Minor adverse	None	Minor adverse (not significant)	N/A

Potential Impact	Receptor(s)	Sensitivity	Magnitude of Impact	Significance of Effect	Secondary Mitigation	Residual Significance of Effect	Cumulative Residual Significance of Effect
D5: Additional steaming to alternative fishing grounds for vessels that would otherwise fish within the Bellrock WFDA	UK demersal otter trawl	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK demersal seine	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK pelagic trawl and purse seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	Non-UK pelagic trawl and purse seine	Low	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK scallop dredge	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK beam trawl	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK potting	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK gear with hooks	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A

Potential Impact	Receptor(s)	Sensitivity	Magnitude of Impact	Significance of Effect	Secondary Mitigation	Residual Significance of Effect	Cumulative Residual Significance of Effect
D6: Increased snagging risk, which could result in loss or damage to fishing gear	UK demersal otter trawl	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK demersal seine	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK pelagic trawl and purse seine	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	Non-UK pelagic trawl and purse seine	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK scallop dredge	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK beam trawl	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK potting	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A
	UK gear with hooks	Medium	Low	Minor adverse	None	Minor adverse (not significant)	N/A

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