DOGGER BANK D WIND FARM

Artificial Nesting Structure Compensation Measure

Preliminary Environmental Information Report

Appendix D Scoping Rationale

Date: February 2026

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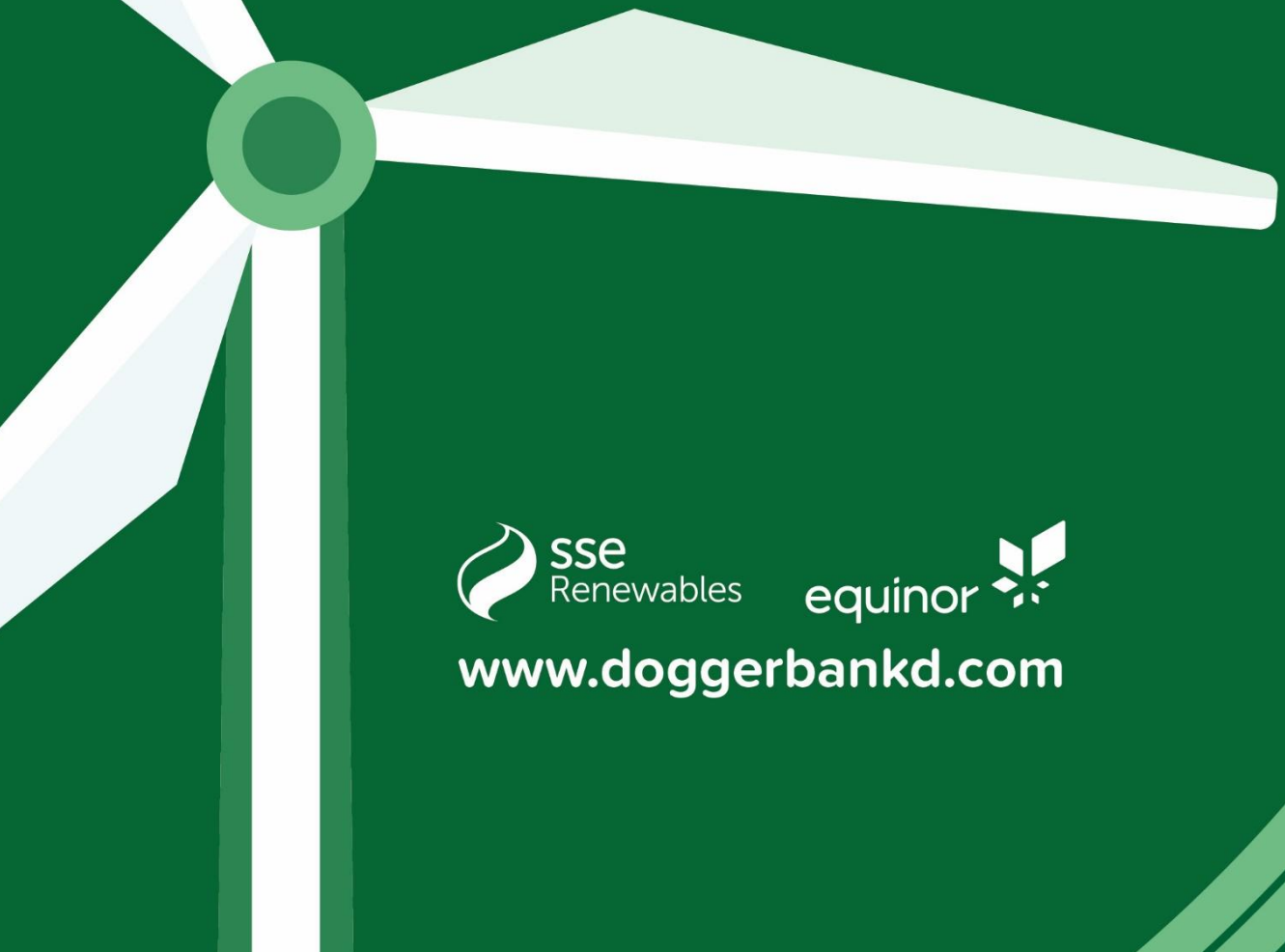

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1. Marine Physical Processes

Table 1.1 Marine Physical Processes – Impacts Scoped In or Out of the Assessment

Impact ID	Impact and Project Activity	Scoped In/Out	Rationale
Construction			
MPP-C-03	Changes in suspended sediment concentration, transport, and seabed level - due to drilling for ANS foundation installation	In	There is potential for drilling for the ANS foundation during construction to change seabed level due to deposition of suspended sediment.
MPP-C-04	Changes in suspended sediment concentration, transport, and seabed level - due to seabed preparation for ANS foundation installation	In	There is potential for seabed preparation for ANS foundation during construction to change seabed level due to deposition of suspended sediment.
MPP-C-07	Indentations on the seabed - due to the presence of installation vessels	In	There is potential for installation vessels during construction to directly impact the seabed through creation of indentations.
Operation and Maintenance			
MPP-O-01	Changes in the tidal current regime - due to the presence of infrastructure (ANS foundation)	In	The presence of the ANS foundation on the seabed during operation has the potential to alter the baseline tidal current regime.
MPP-O-02	Changes in the wave regime - due to the presence of infrastructure (ANS foundation)	In	The presence of the ANS foundation on the seabed during operation has the potential to alter the baseline wave regime.
MPP-O-03	Changes in water circulation (Flamborough Front) - due to the presence of infrastructure (ANS foundation)	In	The presence of the ANS foundation on the seabed during operation has the potential to change water column stratification.

Impact ID	Impact and Project Activity	Scoped In/Out	Rationale
MPP-O-04	Changes in bedload sediment transport and seabed morphology - due to the presence of infrastructure (ANS foundation)	In	The presence of the ANS foundation on the seabed during operation has the potential to alter the baseline bedload sediment transport regime.
MPP-O-08	Indentations on the seabed - due to the presence of repair and maintenance vessels	In	There is potential for installation vessels during operation and maintenance to directly impact the seabed through creation of indentations.

2. Marine Water and Sediment Quality

Table 2.1 Marine Water and Sediment Quality – Impacts Scoped In or Out of the Assessment

Impact ID	Impact and Project Activity	Scoped In/Out?	Rationale
Construction			
MWS-C-01	Effects on Water Quality Arising Suspended Sediment Concentrations	Out	There is potential for seabed preparation and foundation installation to suspend sediment into the water column, which may result in the formation of sediment plumes. However, this will only be for a single structure and therefore the duration for any impacts from would be very temporary, with an expectation that conditions would return to background levels within a short period.
MWS-C-03	Remobilisation of Existing Contaminated Sediments	Out	There is the potential for seabed preparation to disturb contaminated sediment, resulting in its redeposition elsewhere. Relocated sediment has the potential to alter the chemical composition of the affected area. However, contaminant analysis from the site-specific surveys confirmed no contaminants are present.
Operation and Maintenance			
MWS-O-03	Remobilisation of existing contaminated sediments in the Study Area	Out	There is potential for jack-up operations conducted during the operation and maintenance activities on ANS infrastructure to remobilise contaminated sediment. However, contaminant analysis from the site-specific surveys confirmed no contaminants are present.

3. Benthic Ecology

Table 3.1 Benthic Ecology– Impacts Scoped In or Out of the Assessment

Impact ID	Impact and Project Activity	Scoped In/Out	Rationale
Construction			
BEN-C-01	Temporary habitat loss / physical disturbance from installation of the ANS foundation, seabed preparation including sandwave levelling, and indentations on the seabed from jack-up vessels.	In	There is potential for direct physical disturbance of the seabed from construction activities such as the installation of the foundation, seabed preparation and indentations on the seabed from jack-up vessels.
BEN-C-02	Habitat loss / alteration from presence of the ANS foundation, scour protection or any erosion.	Out	Considered in operation and maintenance phase instead.
BEN-C-03	Increased SSC and sediment re-deposition from installation of the ANS foundation, scour protection or any erosion.	In	There is the potential for seabed preparation and the installation of foundation, including associated scour protected, to increase the suspended sediment concentration of the water column. This may reduce phytoplankton biomass.
BEN-C-04	Remobilisation of contaminated sediments from ANS installation	Out	Sediment chemical composition within the Study Area has been informed by the site-specific surveys undertaken across and within the AoS. The survey results demonstrated that contaminant levels are below relevant Action levels (ALs) in all AoS (see **Chapter 8 Marine Water and Sediment Quality**). There is therefore no pathway for an impact.

Impact ID	Impact and Project Activity	Scoped In/Out	Rationale
BEN-C-06	Pollution events resulting from the accidental release of pollutions during construction activities and UXO clearance.	Out	Coatings, treatments, and chemicals used in construction and UXO clearance can potentially pollute the marine environment. However, with embedded mitigation measures and the commitments that would be secured in the PEMP, it is considered that the risk of a spill occurring is low and with the appropriate management measures in place.
BEN-C-07	Disturbance from noise and vibration from pile driving during construction activities and UXO clearance.	In (piling only)	There is potential for episodic noise produced in construction and UXO clearance to impact benthic species.
BEN-C-09	Introduction of marine Invasive Non- Native Species (INNS) from vessels during construction activities	Out	Construction vessels operating across various marine environments may facilitate the introduction of INNS, which have the potential to colonise benthic habitats. With the appropriate mitigations in place through commitments secured in the PEMP, it is not anticipated that there is a pathway to this impact.
BEN-C-11	Colonisation of introduced substrate from ANS infrastructure	Out	Artificial hard substrates introduced via infrastructure such as the ANS foundation and scour protection could act as potential 'stepping stones' or vectors for INNS whereby these species colonise the introduced substrate. Therefore, this impact is scoped out of the assessment for the construction phase as it will be assessed fully for the operation phase.
Operation and Maintenance			
BEN-O-01	Temporary habitat loss / physical disturbance from maintenance activities.	In	The physical presence of ANS infrastructure on the seabed will result in habitat loss/ alteration. Maintenance activities will also cause physical disturbance and habitat loss.
BEN-O-02	Habitat loss / alteration from presence of the ANS foundation, scour protection, any erosion or other protection.	In	The presence of the ANS foundation and scour protection on the seabed may result in a footprint of benthic habitat loss.

Impact ID	Impact and Project Activity	Scoped In/Out	Rationale
BEN-O-03	Increased SSC and sediment re-deposition from operation and maintenance activities.	In	There is the potential temporary physical disturbance during operation from maintenance activities.
BEN-O-04	Remobilisation of contaminated sediments from operation and maintenance activities.	Out	Sediment chemical composition within the Study Area has been informed by the site-specific surveys undertaken across and within the AoS. The survey results demonstrated that contaminant levels are below relevant Action levels (ALs) in all AoS (see **Chapter 8 Marine Water and Sediment Quality**). There is therefore no pathway for an impact.
BEN-O-06	Pollution events resulting from the accidental release of pollutions during operational activities.	Out	Coatings, treatments, and chemicals used in operation can potentially pollute the marine environment. The design commitment of a PEMP will be utilised to reduce spillage risk and establish appropriate management measures. Additionally, operation vessels would comply with MARPOL

Impact ID	Impact and Project Activity	Scoped In/Out	Rationale
BEN-O-07	Disturbance from noise and vibration from pile driving during operational activities.	Out	There is potential for episodic noise produced in operational activities to impact benthic species but it is not expected to be significant. As piling will be completed during the construction phase, any effects of underwater noise and vibration from vessels are unlikely to cause significant effects on benthic receptors. Therefore, this impact is scoped out of the assessment.
BEN-O-09	Introduction of marine Invasive Non- Native Species (INNS) from vessels during operational activities	Out	Operational vessels operating across various marine environments may facilitate the introduction of INNS, which have the potential to colonise benthic habitats. With the appropriate mitigations in place through commitments secured in the PEMP, it is not anticipated that there is a pathway to this impact.
BEN-O-11	Colonisation of introduced substrate from presence of sub-sea structures, including foundation structures.	In	There is potential for the subsea structures to be colonised by a range of species leading to a localised increase in biodiversity. The presence of the structures would also provide habitat for mobile species and serve as a refuge for fish. This represents a change from the baseline ecology.
The impacts scoped in for decommissioning are as for construction, with the exception that underwater noise is scoped out of assessment. There will be no pile driving at decommissioning.			

4. Fish and Shellfish Ecology

Table 4.1 Fish and Shellfish Ecology – Impacts Scoped In or Out of the Assessment

Impact ID	Impact and Project Activity	Scoped In / Out	Rationale
Construction			
FSE-C-02	Temporary habitat loss / physical disturbance	In	Foundation installation work for the ANS (including seabed preparation) will physically disturb the seabed.
FSE-C-03	Habitat loss / alteration – ANS foundation and scour protection on the seabed	Out	Considered as an operational phase impact
FSE-C-04	Increased suspended sediment and sediment-redeposition	In	Foundation installation work for the ANS (including seabed preparation) will physically disturb the seabed. This in turn will cause the suspension of sediment into the water column.
FSE-C-06	Remobilisation of contaminated sediments	Out	Sediment chemical composition within the Study Area has been informed by the site-specific surveys undertaken across and within the AoS. The survey results demonstrated that contaminant levels are below relevant Action levels (ALs) in all AoS (see **Chapter 8 Marine Water and Sediment Quality**). There is therefore no pathway for effect and all the AoS are scoped out of further assessment.
FSE-C-07	Underwater noise and vibration	In	Underwater noise generated by pile driving, UXO clearance and other construction activities may result in disturbance and displacement of fish species and have the potential to affect spawning behaviour, nursery areas and migration patterns.

Impact ID	Impact and Project Activity	Scoped In / Out	Rationale
FSE-C-08	Changes in fishing pressure	Out	The use of work vessels and any safety zones during installation of the ANS has the potential to temporarily alter the distribution of fishing effort. Given the limited nature of the works, involving the installation of a single ANS, it is considered that the nature of the works is so limited that there is no potential for resultant changes to fishing activity to cause significant effects on fish and shellfish populations in the Study Area. Therefore, changes in fishing pressure during construction are scoped out due to the extremely small scale of the ANS.
FSE-C-11	Introduction of hard substrate – presence of concrete and steel structures	Out	The extent of this impact is highly limited both spatially and temporally in relation to identified fish and shellfish receptor groups within the Study Area.
Operation and Maintenance			
FSE-O-02	Temporary habitat loss / physical disturbance – maintenance activities	In	Some repair and maintenance work to the ANS structure may physically disturb the seabed.
FSE-O-03	Habitat loss / alteration – ANS foundation and scour protection on the seabed.	In	The presence of the ANS foundation and scour protection on the seabed will result in a small footprint of habitat loss.
FSE-O-04	Increased suspended sediment and sediment-redeposition – maintenance activities	Out	Maintenance activities may result in highly localised disturbance to seabed habitats (e.g. from anchoring or jack-ups), and subsequent sediment suspension. However, the scale is extremely limited and intermittent throughout the lifetime of the ANS, such that an immeasurably small effect would occur. Therefore, effects relating to sediment resuspension and deposition are scoped out of further assessment.

Impact ID	Impact and Project Activity	Scoped In / Out	Rationale
FSE-O-06	Remobilisation of contaminated sediments	Out	Sediment chemical composition within the Study Area has been informed by the site-specific surveys undertaken across and within the AoS in 2024 and 2025. The survey results demonstrated that contaminant levels are below relevant Action levels (ALs) in all AoS (see **Chapter 8 Marine Water and Sediment Quality**). There is therefore no pathway for effect and all the AoS are scoped out of further assessment.
FSE-O-07	Underwater noise and vibration – vessel noise	Out	The main source of underwater noise during operation will arise from surface vessels undertaking O&M activities. This will be of such limited extent and frequency (seven visits predicted over the > 37 year lifetime of the ANS) that any change in the background noise levels would be immeasurable. Therefore, effects relating to underwater noise during operation are scoped out of further assessment.
FSE-O-08	Changes in fishing pressure - O&M activities	Out	Given the limited scale of the infrastructure installed, comprising a single ANS, it is considered that the extent of habitat loss for commercial fishing is so limited that there is no potential for resultant changes to fishing activity.
FSE-O-11	Introduction of hard substrate – presence of concrete and steel structures	Out	The extent of this impact is highly limited both spatially and temporally in relation to identified fish and shellfish receptor groups within the Study Area.
The impacts scoped in for decommissioning are as for construction, with the exception that underwater noise is scoped out of assessment. There will be no pile driving at decommissioning.			

5. Marine Mammals

Table 5.1 Marine Mammals- Impacts Scoped In or Out of the Assessment

Impact ID	Impact and Project Activity	Scoped In/Out	Rationale
Construction			
MM-C-01	Underwater Noise: Physical and Auditory Injury from Impact Piling During Construction	In	There is the potential for underwater noise produced during construction, principally from pilling activity, to cause auditory injury to marine mammals.
MM-C-02	Underwater Noise: Behavioural Impacts from Impact Piling During Construction	In	Underwater noise from construction may disturb marine mammals, potentially causing them to change behaviours or avoid the area.
MM-C-05	Underwater Noise: Physical and Auditory Injury Resulting from Noise Associated with Other Construction Activities – Installation of Offshore Infrastructure and Presence of Vessels	In	There is the potential for construction activities such as such as dredging and rock placement and vessel presence to cause physical and auditory injury to marine mammals.
MM-C-06	Underwater Noise: Behavioural Impacts from Resulting from Other Construction Activities – Installation of Offshore Infrastructure and Presence of Vessels	In	Underwater noise from other construction activities (such as dredging and rock placement), along with the presence of vessels offshore, has the potential for disturbance effects.
MM-C-08	Disturbance at Seal Haul-out Sites – From Piling Works and Vessel Transits	In	Disturbance from the ANS and the port of origin for construction vessels has the potential to disturb seals at haul-out sites
MM-C-09	Impact on Vessel Interaction (Increase in Risk of Collision)	In	Increased vessel traffic has the potential to raise the chances of collisions with marine mammals.

Impact ID	Impact and Project Activity	Scoped In/Out	Rationale
Operation and Maintenance			
MM-O-01	Underwater Noise: Physical and Auditory Injury from Impact Piling During Operation	Out	There will be no piling works during operation of the ANS
MM-O-02	Underwater Noise: Behavioural Impacts from Impact Piling During Operation	Out	There will be no piling works during operation of the ANS
MM-O-05	Underwater Noise: Physical and Auditory Injury Resulting from Noise Associated with Other Maintenance Activities and Vessel Noise	Out	The noise from operational activities and vessel noise will not have the potential to cause physical or auditory injury to marine mammals
MM-O-06	Underwater Noise: Behavioural Impacts Resulting from Maintenance Activities - Maintenance of Infrastructure, Presence of Vessels and Vessel Traffic	In	There is the potential for vessels used during operation and maintenance to affect the behaviour of marine mammals.
MM-OC-08	Disturbance at Seal Haul-out Sites – From Operational Works and Vessel Transits	Out	Disturbance from the ANS and the port of origin for operational vessels will not have the potential to disturb seals at haul-out sites given the insignificance of the works and distance to haul-out sites.
MM-O-09	Impacts on Vessel Interaction (Increase in Risk of Collision) – from all Vessel Movements Relating to Operation and Maintenance Activities	In	The deployment of vessels for operation and maintenance purposes may elevate the risk of collisions involving marine mammals.

6. Offshore Ornithology

Table 6.1 Offshore Ornithology - Impacts Scoped In or Out of the Assessment

Impact ID	Impact and Project Activity	Scoped In/Out	Rationale
Construction			
ORN-C-01	Direct disturbance and displacement, due to construction and vessel movement	In	There is potential for movement and presence of construction-phase vessels, plus underwater and above-water noise and visual imposition from construction activities, to cause direct disturbance and displacement to birds in the offshore habitats at the ANS location.
ORN-C-04	Pollution events resulting from the accidental release of pollutants	Out	Embedded mitigation against accidental spills and pollution means this impact can be scoped out from further assessment
ORN-C-05	Indirect impacts via habitat or prey availability, from construction and vessel movement	In	Seabed preparation and construction of the ANS, use of jack-up vessels, and underwater noise from construction activities, has the potential to indirectly impact birds in the offshore habitats at the ANS location through direct temporary impact on the habitats of their prey species, disturbing and displacing their prey species, or lowering availability of prey by making foraging more difficult.
Operation and Maintenance			
ORN-O-01	Direct disturbance and displacement, due to maintenance and vessel movements	In	There is potential for movement and presence of maintenance vessels, lights and foghorns as part of aids to navigation plus underwater and above-water noise and visual imposition from maintenance activities, to cause direct disturbance and displacement to birds in the offshore habitats at the ANS location.

Impact ID	Impact and Project Activity	Scoped In/Out	Rationale
ORN-O-03	Barrier effects due to presence and operation of the ANS	Out	There is potential for the offshore structure to have a direct barrier effect on movement of birds in the offshore environment. Birds detecting a novel obstruction within their path of movement (flying, swimming) could potentially make a detour in order to pass the structure at such a radius as to increase the total distance of movement. This would have implications for energy budget and survival rate especially when the increased route is performed frequently e.g. during multiple foraging round-trips per day during the breeding season. However, at an approximate topside width of 30m, the size of the ANS is negligible compared to the scale of the migratory or foraging range corridor of offshore birds, such that the total additional distance of movements to account for the ANS are also predicted to be negligible.
ORN-O-04	Pollution events resulting from the accidental release of pollutants	Out	Embedded mitigation against accidental spills and pollution means this impact can be scoped out from further assessment.
ORN-O-05	Indirect impacts via habitat or prey availability, from permanent construction, maintenance and vessel movements	In	There is potential for presence and operation of the ANS offshore structures to indirectly impact birds in the offshore habitats at the ANS location, through direct permanent conversion or loss of habitat of their prey species to the ANS footprint/structure.
ORN-O-06	Collision risk due to presence and operation of the ANS	Out	There is potential for offshore structures to pose a direct collision risk to birds undertaking foraging or migratory movement in the offshore environment. Birds failing to detect a novel obstruction within their flight path could potentially collide with the structure, with collisions assumed to be fatal or at least injurious. However, the size of ANS is at such a scale that the total above-water surface area and collision risk is predicted to be negligible compared to the scale of the migratory or foraging ranging corridor of offshore birds (Wright *et al.*, 2012; Woodward *et al.*, 2019). The ANS will also have no moving components, unlike wind turbines.

7. Commercial Fisheries

Table 7.1 Commercial Fisheries - Impacts Scoped In or Out of the Assessment

Impact ID	Impact and Project Activity	Scoped In/Out	Rationale
Construction			
CF-C-02	Reduction in access to, or exclusion from established fishing grounds	In for A8 – Potting	Installation activities and the physical presence of constructed infrastructure may lead to a temporary reduction in access to, or exclusion from established fishing grounds.
CF-C-03	Displacement leading to gear conflict and increased fishing pressure on adjacent / alternative grounds	In for A8 – Potting	There is a small potential for fishing activity to be displaced from the ANS footprint during construction at A8, leading to gear conflict and increased fishing pressure on adjacent grounds.
CF-C-04	Displacement or disruption of commercially important fish and shellfish resources	Out	Construction activities will not lead to the displacement or disruption of commercially important fish and shellfish resources due to the insignificant scale of the ANS
CF-C-05	Increased vessel traffic associated with the ANS within fishing grounds leading to interference with fishing activity	Out	The movement of vessels associated with the ANS will make a negligible difference to the existing volume of marine traffic in the area.
CF-C-07	Additional steaming to alternative fishing grounds - all other fleets	Out	There is not considered to be the potential for fishing vessels to travel further than usual to reach alternative fishing grounds because of the insignificant scale of the ANS.

Impact ID	Impact and Project Activity	Scoped In/Out	Rationale
Operation and Maintenance			
CF-O-02	Reduction in access to, or exclusion from established fishing grounds	In for A8 – Potting	O&M activities and the physical presence of constructed infrastructure may lead to a reduction in access to, or exclusion from established fishing grounds.
CF-O-03	Displacement leading to gear conflict and increased fishing pressure on adjacent / alternative grounds	In for A8 – Potting	Fishing activity may be displaced from the ANS footprint, leading to gear conflict and increased fishing pressure on adjacent grounds, during the operation phase.
CF-O-04	Displacement or disruption of commercially important fish and shellfish resources	Out	There is not considered to be a potential for O&M activities to lead to the displacement or disruption of commercially important fish and shellfish resources because of the insignificant scale of the ANS.
CF-O-07	Additional steaming to alternative fishing grounds - all other fleets	Out	There is the potential for maintenance safety zones and ANS infrastructure but these are not expected to cause deviations to steaming routes because of the insignificant scale of the ANS.
CF-O-09	Physical presence of infrastructure leading to gear snagging	Out	There is the no potential for gear snagging due to the physical presence of ANS infrastructure during operation due to the lack of any cable infrastructure associated with the development.

8. Shipping and Navigation

Table 8.1 Shipping and Navigation- Impacts Scoped In or Out of the Assessment

Impact ID	Impact and Project Activity	Scoped In/Out	Rationale
Construction			
SN-C-01	Impact on Vessel Displacement Due to the Presence of the ANS	In	Activities associated with the installation of the ANS as well as the presence of the ANS may displace third-party vessels from their existing routes or activity.
SN-C-02	Increased Vessel to Vessel Collision Risk Between Third-Party Vessels (Route-Based) Due to Displacement	In	Activities associated with the installation of the ANS as well as the presence of the ANS may displace third-party vessels from their existing routes or activity, increasing the collision risk with other third-party vessels.
SN-C-04	Vessel to Structure Allision Risk for Third-Party Vessels Due to the Presence of the ANS	In	The presence of partially constructed structures may result in the creation of a risk of allision for vessels.
Operation and Maintenance			
SN-O-01	Impact on Vessel Displacement Due to the Presence of the ANS	In	Activities associated with the maintenance of structures as well as the presence of surface structures may displace third-party vessels from their existing routes or activity.
SN-O-02	Increased Vessel to Vessel Collison Risk Between Third-Party Vessels (Route-Based) Due to Displacement	In	Activities associated with the maintenance of the ANS structure as well as the presence of the surface structure may displace third-party vessels from their existing routes or activity, increasing the collision risk with other third-party vessels.
SN-O-04	Vessel to Structure Allision Risk for Third-Party Vessels Due to the Presence of the ANS	In	The presence of the ANS may result in the creation of a risk of allision for vessels.

9. Aviation, Radar and Military

Table 9.1 Aviation, Radar and Military - Impacts Scoped In or Out of the Assessment

Impact ID	Impact and Project Activity	Scoped In/Out	Rationale
Construction			
ARM-C-01	Impacts on military and civil radar	Out	The closest ANS AoS to the UK mainland is A8, which is 46km from the shore at its closest point, therefore impacts on communication, navigation and surveillance facilities and weather radar are scoped out of the assessment.
ARM-C-02	Impacts on radio navigation aids	Out	There are no radio navigation aids within 9nm of any AoS, therefore this is scoped out of the assessment.
ARM-C-03	Creation of an aviation obstacle environment – installation of above sea level infrastructure	In	There is the potential for tall installation vessels and the construction of infrastructure above sea level to pose a physical obstruction to low flying aircraft utilising the airspace in the vicinity.
ARM-C-03	Bird strike risk to helicopters flying in the vicinity of the ANS	Out	During construction there is no expected increase in ornithology presence and thus bird strike risk during construction is scoped out of the assessment.
Operation and Maintenance			
ARM-O-01	Impacts on military and civil radar	Out	The closest ANS AoS to the UK mainland is A8, which is 46km from the shore at its closest point, therefore impacts on communication, navigation and surveillance (CNS) facilities and weather radar are scoped out of the assessment.
ARM-O-02	Impacts on radio navigation aids	Out	There are no radio navigation aids within 9nm of any AoS, therefore this is scoped out of the assessment.

Impact ID	Impact and Project Activity	Scoped In/Out	Rationale
ARM-O-03	Creation of an aviation obstacle environment – presence of ANS	In	During the operation and maintenance phase, the presence of the ANS could pose a physical obstruction to low flying aircraft utilising the airspace in the vicinity.
ARM-O-07	Bird strike risk to helicopters flying in the vicinity of the ANS	In	There is the potential for an increase the likelihood of bird strikes for flight operations in the same area.

10. Offshore Archaeology

Table 10.1 Offshore Archaeology - Impacts Scoped In or Out of the Assessment

Impact ID	Impact and Project Activity	Scoped In / Out	Rationale
Construction			
OFA-C-01	Direct Physical Impacts to Known Heritage Assets- due to the installation of ANS foundation and scour protection	In	There is the potential for the construction of the ANS infrastructure to damage or destroy heritage assets located on the seafloor or buried within seabed deposits.
OFA-C-02	Direct Physical Impacts to Potential Heritage Assets- due to the installation of ANS foundation and scour protection	In	There is the potential for the construction of the ANS infrastructure to damage or destroy archaeological material present within the footprint of ANS elements.
OFA-C-03	Indirect Impacts to Heritage Assets Associated with Changes to Marine Physical Processes- due to seabed preparation and foundation installation	In	There is the potential for construction of the ANS also to interact with both local and regional hydrodynamic and sedimentary processes which in turn may result in impacts of an indirect (physical) nature occurring upon heritage assets.
OFA-C-04	Changes to the Setting of Heritage Assets and Historic Seascape Character – due to the presence of construction vessels and activities	Out	Changes to the setting of heritage assets during construction of the ANS would be temporary and of sufficiently short duration such that they would not give rise to a significant effect on the cultural significance of those heritage assets. Similarly, changes to the historic seascape character would be short term and temporary and would not result in a change to the character of the historic seascape.
Operation and Maintenance			
OFA-O-01	Direct Physical Impacts to Known Heritage Assets- during routine or unscheduled maintenance activities.	Out	All known heritage assets will be avoided through the retention of AEZs throughout the operation of the ANS and there is no pathway for impact.

Impact ID	Impact and Project Activity	Scoped In / Out	Rationale
OFA-O-02	Direct Physical Impacts to Potential Heritage Assets - during routine or unscheduled maintenance activities.	Out	Any direct physical impacts would already have occurred during installation of the ANS during the construction phase and would already have been subject to appropriate and proportionate additional mitigation measures, as and where necessary.
OFA-O-03	Indirect Impacts to Heritage Assets Associated with Changes to Marine Physical Processes	In	The operation of the ANS has the potential to interact with both local and regional hydrodynamic and sedimentary processes which in turn may result in impacts of an indirect (physical) nature occurring upon heritage assets due to the presence of the structure.
OFA-O-04	Changes to the Setting of Heritage Assets and Historic Seascape Character	In	There is potential for changes to the setting of heritage assets and to the historic seascape character due to the presence of the ANS structure and operation phase maintenance activities.

11. Other Marine Users

Table 11.1 Other Marine Users- Impacts Scoped In or Out of the Assessment

Impact ID	Impact and Project Activity	Scoped In/Out	Rationale
Construction			
OMU-C-01	Potential interference with other offshore wind farms	Out	Although there is some overlap between the Study Areas and Other Marine Users such as subsea cables and CCS leasing sites, given that only one structure is planned to be installed, any impact is deemed to be incredibly limited and therefore, these impacts are proposed to be scoped out.
OMU-C-02	Potential interference with oil and gas activities	Out	
OMU-C-03	Physical impacts on sub-sea cables and pipelines	Out	
OMU-C-04	Impacts on CCS sites	Out	
OMU-C-05	Impacts on aggregate dredging activities	Out	
OMU-C-06	Impacts on disposal sites	Out	
OMU-C-07	Impacts of MoD activities	Out	
Operation and Maintenance			
OMU-O-01	Potential interference with other offshore wind farms	Out	Although there is some overlap between the Study Areas and Other Marine Users such as subsea cables and CCS leasing sites, given that only one structure is planned to be installed, any impact is deemed to be incredibly limited and therefore, these impacts are proposed to be scoped out.
OMU-O-02	Potential interference with oil and gas activities	Out	
OMU-O-03	Physical impacts on sub-sea cables and pipelines	Out	
OMU-O-04	Impacts on CCS sites	Out	
OMU-O-05	Impacts on aggregate dredging activities	Out	

Impact ID	Impact and Project Activity	Scoped In/Out	Rationale
OMU-O-06	Impacts on disposal sites	Out	
OMU-O-07	Impacts of MoD activities	Out	

12. Socio-Economics, Tourism and Recreation

Table 12.1 Socio-Economics, Tourism and Recreation- Impacts Scoped In or Out of the Assessment

Impact ID	Impact and Project Activity	Scoped In/Out	Rationale
Construction			
SOC-C-01	Direct economic benefit (supply chain)	In	There is the potential for the construction of the ANS to generate direct economic benefit through its supply chain, including spending on goods and services in the Study Areas.
SOC-C-02	Increased employment	In	There is the potential for the construction of the ANS to generate increased employment in the Study Areas.
SOC-C-05	Disruption to recreational activities - offshore and onshore construction activities	Out	Construction of the ANS has the potential to impact on recreational activities near the primary construction port and round the ANS itself. Given the small scale of the ANS, the localised area of construction activity, and the existing levels of vessel traffic within, to and from ports to the AoS, these temporary vessel passage or presences are not expected to interfere with the limited recreational activities beyond existing safety requirements (see **Chapter 14 Shipping and Navigation**).
SOC-C-06	Disruption to the tourism industry	Out	Construction of the ANS will occur entirely offshore where no tourist assets are present.
SOC-C-07	Disruption to the Fishing Industry	Out	The impacts on commercial fishing are presented in **Chapter 13 Commercial Fisheries**.
Operation and Maintenance			
SOC-O-01	Direct economic benefit (supply chain)	In	There is the potential for the operation and maintenance phase of the ANS to generate direct economic benefit through its supply chain, including spending on goods and services in the Study Areas, albeit lesser in scale than that in the construction phase.

Impact ID	Impact and Project Activity	Scoped In/Out	Rationale
SOC-O-02	Increased employment	In	There is the potential for the operation and maintenance phase of the ANS to generate increased employment in the Study Areas, albeit lesser in scale than that in the construction phase.
SOC-O-05	Disruption to recreational activities - offshore and onshore construction activities	Out	The presence of the ANS could have potential impacts on recreational activities, through obstruction. Given the small scale of the structure, the localised area of an exclusion zone, the magnitude of any impact would be extremely small given the surrounding environment.
SOC-O-06	Disruption to the tourism industry	Out	The ANS will be located entirely offshore where no tourist assets are present. Therefore, no impacts on tourism are anticipated.
SOC-O-07	Disruption to the fishing industry	Out	The impact on commercial fishing is presented in **Chapter 13 Commercial Fisheries**.

13. Human Health

Table 13.1 Human Health - Impacts Scoped In or Out of the Assessment

Impact ID	Impact and Project Activity	Scoped In/Out	Rationale
Construction			
HH-C-02	Social environment: open space, leisure and play	Out	Given the small scale of the ANS development in construction and the significant distance from onshore human health receptors, there is not considered to be a pathway for any human health-related impacts and all have been scoped out from assessment.
HH-C-05	Impacts on transport modes, access and connections (onshore) - onshore construction activities and associated road vehicle movements	Out	
HH-C-07	Social environment: community identity, culture, resilience and influence	Out	
HH-C-09	Economic environment: education and training	Out	
HH-C-10	Economic environment: employment and income	Out	
HH-C-12	Bio-physical environment: climate change and adaptation	Out	
HH-C-14	Impacts on air quality (onshore) - dust and fine particulate emissions, plant, equipment and road vehicle exhaust emissions associated with onshore construction activities	Out	
HH-C-16	Impacts on water quality and availability (onshore) - accidental pollution associated with onshore construction activities	Out	
HH-C-19	Impacts from noise and vibration (onshore) - noise and vibration associated with onshore construction activities and associated road vehicle movements	Out	

Impact ID	Impact and Project Activity	Scoped In/Out	Rationale
Operation and Maintenance			
HH-O-02	Social environment: open space, leisure and play	Out	Given the small scale of the ANS development in operations and the significant distance from onshore human health receptors, there is not considered to be a pathway for any human health-related impacts, and all have been scoped out from assessment.
HH-O-08	Impacts on community identity, culture, resilience and influence (onshore) - presence of onshore workforce during routine and unplanned O&M activities, presence of onshore infrastructure during operation and onshore routine and unplanned O&M activities	Out	
HH-O-09	Impacts on education and training (offshore and onshore) - offshore and onshore routine and unplanned O&M activities	Out	
HH-O-10	Impacts on employment and income (offshore and onshore) - offshore and onshore routine and unplanned O&M activities	Out	
HH-O-12	Impacts on climate change and adaptation (offshore and onshore) - provision of renewable energy during operation of the wind farm and other potential carbon benefits enabled by the ESBI	Out	
HH-O-19	Impacts from noise and vibration (onshore) - noise and vibration associated with onshore O&M activities and associated road vehicle movements	Out	
HH-O-21	Impacts from public perception of electro-magnetic field risk (onshore) - presence of onshore electrical infrastructure during operation	Out	
HH-O-25	Impacts on built environment (onshore) - disruption to third-party assets during onshore routine and unplanned O&M activities and presence of onshore infrastructure during operation	Out	
HH-O-26	Impact on wider societal infrastructure and resources (offshore) - provision of renewable energy during operation of the wind farm	Out	

14. Major Accidents and Disasters

Table 14.1 Major Accidents and Disasters- Impacts Scoped In or Out of the Assessment

Impact ID	Impact and Project Activity	Scoped In/Out	Rationale
N/A	All potential activities	Out	No major accidents or disasters are predicted to arise from the presence of the structure as there are no ongoing activities or emissions.

15. Climate Change

Table 15.1 Climate Change – Impacts Scoped In or Out of the Assessment

Impact ID	Impact and Project Activity	Scoped In/Out	Rationale
Construction			
CCR-C-01	Construction GHG emissions – construction activities	Out	Construction activities and upstream supply chain activities associated with materials used to construct the ANS will result in GHG emissions. The magnitude of these for a single structure are negligible compared to the national and internationally GHG quantities. As such, given this negligible scale, this is **s**coped out of the assessment. However, it is proposed that the DBD Project GHG assessment will take the ANS into account in its calculations of overall benefit at the ES stage.
CCR-C-04	Vulnerability and resilience of ANS to climate change impacts	Out	As the ANS construction would be an individual event at a time in the near future the construction activities would take into account potential climate change effects, and as such this is scoped out of the assessment.
Operation and Maintenance			
CCR -O-01	O&M GHG emissions – O&M activities	Out	O&M activities and upstream supply chain activities will result in GHG emissions. The magnitude of these for intermittent activities are negligible compared to the national and internationally GHG quantities. As such, given this negligible scale, this is scoped out of the assessment. However, it is proposed that the DBD Project GHG assessment will take the ANS operational and maintenance activities into account in its calculations of overall benefit at the ES stage.
CCR-O-04	Vulnerability and resilience of ANS to climate change impacts	Out	The ANS is a structure that will be designed with current and future sea levels and storm scenarios in mind. Therefore, it would be resilient to potential physical changes and as such this is scoped out of the assessment.