

Our Ref: 01.01.01.01-6588U
UKOP Doc Ref:1391340



Offshore Petroleum Regulator
for Environment
& Decommissioning

EQUINOR UK LIMITED
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Registered No.: 01285743

Date: 9th April 2025

Department for Energy Security &
Net Zero

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Dear Sir / Madam

**THE OFFSHORE OIL AND GAS EXPLORATION, PRODUCTION, UNLOADING
AND STORAGE (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS
2020**

Rosebank Phase 1 SURF Installation

A screening direction for the project detailed in your application, reference PL/2549/0 (Version 4), dated 7th April 2025 has been issued under regulation 6 of the above Regulations. The screening direction notice, and any relevant conditions and comments are attached. A copy of this screening direction will be forwarded to the application consultees, the Oil and Gas Authority and published on the gov.uk website.

If you have any queries in relation to this screening direction or the attachments, please do not hesitate to contact [REDACTED] on [REDACTED] or email the Environmental Management Team at opred@energysecurity.gov.uk.

Yours faithfully



**THE OFFSHORE OIL AND GAS EXPLORATION, PRODUCTION, UNLOADING
AND STORAGE (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS
2020**

**SCREENING DIRECTION CONFIRMING THAT AN ENVIRONMENTAL IMPACT
ASSESSMENT IS NOT REQUIRED**

Rosebank Phase 1 SURF Installation

PL/2549/0 (Version 4)

Whereas EQUINOR UK LIMITED has made an application dated 7th April 2025, under The Offshore Oil and Gas Exploration, Production, Unloading and Storage (Environmental Impact Assessment) Regulations 2020, and whereas the Secretary of State has considered the application and is satisfied that the project is not likely to have a significant effect on the environment; in exercise of the powers available under regulation 6, the Secretary of State hereby directs that the application for consent in respect of the project need not be accompanied by an Environmental Impact Assessment, provided that the project is carried out as described in the application for the screening direction and in accordance with the conditions specified in the attached schedule.

In giving a screening direction under regulation 6 of the above Regulations, the Secretary of State accordingly gives agreement to the Oil and Gas Authority to the grant of consent for the project as detailed in the application, PA/5324.

Effective Date: 9th April 2025

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THE OFFSHORE OIL AND GAS EXPLORATION, PRODUCTION, UNLOADING AND STORAGE (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2020

SCHEDULE OF SCREENING DIRECTION CONDITIONS

The grant of this screening direction is conditional upon the screening direction holder complying with the following conditions.

1 Screening direction validity

The screening direction shall be valid from 9 April 2025 until 31 March 2027.

2 Commencement and completion of the project

The holder of the screening direction must confirm the dates of commencement and completion of the project covered by the screening direction. Notification should be sent by email to the Environmental Management Team Mailbox: opred@energysecurity.gov.uk

3 Nature of stabilisation or protection materials

Rock deposits

321,000 tonnes of clean, inert rock material, containing minimal fines, (The quantity of rock deposited should be the minimum required to provide the necessary stabilisation or protection, and any surplus rock must be returned to land).

Grout bags deposits

5 tonnes of grout contained within 25 kilogramme capacity biodegradable bags. (The number of bags deposited should be the minimum required to provide the necessary protection, and any surplus bags must be returned to land).

Concrete mattress deposits

125 [number] concrete mattresses, each measuring 6 metres x 3 metres. (The number of mattresses deposited should be the minimum required to provide the necessary protection, and any surplus mattresses must be returned to land).

4 Location of pipeline and stabilisation or protection materials

Within the area detailed within the application.

5 Prevention of pollution

The holder of the screening direction must ensure that appropriate measures are

taken to minimise discharges, emissions and waste, in particular through the appropriate use of technology; and to ensure that necessary measures are taken to prevent incidents affecting the environment or, where they occur, to limit their consequences in relation to the environment.

6 Inspections

Should the Department consider it necessary or expedient for an inspector appointed by the Secretary of State to investigate whether the conditions of the screening direction are being complied with, the holder of the screening direction shall afford the inspector with such facilities and assistance as the inspector considers necessary to exercise the powers conferred by the regulations. The holder of the screening direction shall additionally ensure that copies (electronic or paper) of the screening direction and any other relevant documents are available for inspection by the inspector at:

- a) the premises of the holder of the screening direction; and
- b) the facilities undertaking the project covered by the screening direction.

7 Monitoring

The results of any pre or post-placement surveys carried out to confirm the necessity for the deposits covered by the screening direction and/or to confirm the accurate positioning of the stabilisation or protection materials, should be forwarded to the Department following completion of the surveys

8 Check monitoring

Should the Department consider it necessary or expedient to undertake an independent monitoring programme to assess the impact of the project covered by the screening direction, the screening direction holder shall afford the Department with such facilities and assistance as the Department considers necessary to undertake the work.

9 Atmospheric emissions returns

Following completion of the project covered by the screening direction, the holder of the screening direction shall report all relevant atmospheric emissions, such as combustion emissions, using the appropriate Environmental Emissions Monitoring System (EEMS) reporting forms.

10 Deposit returns

The holder of the screening direction shall submit a report to the Department following completion of the deposit covered by the screening direction, confirming the quantity of materials deposited and the estimated area of impact, using the appropriate Environmental Emissions Monitoring System (EEMS) reporting form. Where no deposits are made, a 'nil' return is required.



11 Unauthorised deposits

Following completion of the project covered by the screening direction, the holder of the screening direction shall recover any materials accidentally or temporarily deposited on the seabed, such as debris, temporary containers, structures or deposits, or scientific instruments, and shall return the materials to land. If it is not possible to recover any of these deposits, full details of the materials remaining on the seabed must be reported to the Department in accordance with the requirements of Petroleum Operations Notice No.2 (PON2).

12 Screening direction variation

In the event that the holder of the screening direction proposes changes to any of the particulars detailed in the application for a screening direction, the holder must notify the Department immediately and submit an application for a post screening direction amendment. The post screening direction must be in place prior to the amended proposals taking effect.

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COMMENTS ON THE APPLICATION FOR SCREENING DIRECTION

Section 1

The attention of screening direction holders is drawn to the following provisions regarding The Offshore Oil and Gas Exploration, Production, Unloading and Storage (Environmental Impact Assessment) Regulations 2020.

1) You are deemed to have satisfied yourself that there are no barriers, legal or otherwise, to the carrying out of the project covered by the screening direction. The issue of a screening direction does not absolve the screening direction holder from obtaining such authorisations, consents etc that may be required under any other legislation.

2) The Department would draw your attention to the following comments:

Approval of the Pipeline Screening Direction application PL/2549 does not affect the Department's consideration of any further information provided for ES/2022/001. The commercial decision to undertake further project work in the absence of a new decision on ES/2022/001 is at the developer's own risk.

3) All communications relating to the screening direction should be addressed to:

opred@energysecurity.gov.uk

or

Offshore Petroleum Regulator for Environment & Decommissioning
Department for Energy Security & Net Zero
AB1 Building
Crimon Place
Aberdeen
AB10 1BJ

Tel [REDACTED]



SCHEDULE OF SCREENING DIRECTION DECISION REASONS

The Secretary of State has decided that, based on the information provided, the project is not likely to have a significant effect on the environment. The main reasons for this decision are:

1) Decision reasons

The following provides a summary of the assessment undertaken to determine whether an Environmental Impact Assessment is required for this project, summarises the information considered, the potential impacts and sets out the main reasons for the decision made. In considering whether an Environmental Impact Assessment is required or not, the following have been taken into account:

- a) The information provided by the developer;
- b) the matters listed in Schedule 5 of the Offshore Oil and Gas Exploration, Production, Unloading and Storage (Environmental Impact Assessment Regulations 2020) (the Regulations);
- c) The results of any preliminary verifications or assessments of the effects on the environment of the project; and
- d) Any conditions that the Secretary of State may attach to the agreement to the grant of consent.

Characteristics of the Project

Having regard, in the particular, to the matters identified at paragraphs 1(a) to (g) of Schedule 5 to the Regulations, the characteristics of the project include the following:-

Summary of the Project

The permanent installation of the following subsea infrastructure for Phase 1 of the Rosebank field development:

Gas Export system with tie-in to WOSPS Tie-in Assembly (TIA) including rigid export pipeline (PL6570), pipeline structures, spools, gas riser base (GRB) with SSIV (SubSea Isolation Valve), SSIV control umbilical and dynamic riser;

Gas Lift system including dynamic riser (from the FPSO to the GRB) and

flexible flowlines (PL6568) (from the GRB to Templates B, C and D);

Production systems (x2 from Templates B, C and D) including manifolds installed on the templates, flexible flowlines (PL6571, PL6569) and dynamic riser;

Water injection systems (x3 to Satellites I, J and K)) including rigid water injection pipeline (PL6561, PL6563), flexible flowlines/jumpers (PL6562), dynamic riser and flowbases on the water injection well satellite structures;

Umbilicals systems including Umbilical Riser Base (URB), static production umbilicals (x3 to templates B, C and D) (PLU6564), water injection umbilicals (x3 to satellites I, J and K) (PLU6565, PLU6566), a dynamic umbilical (from the FPSO to the URB) and an SSIV umbilical (from the URB to the GRB)(PLU6567);

Protective and stabilisation deposits comprising concrete mattresses at crossings, buckle initiation sleepers, rock installation along sections of the gas export pipeline which cannot be trenched, grout bags for freespan mitigation and stabilisation, and Glass Reinforced Plastic (GRP) covers to protect the spool at the WOSPS TIA

Associated temporary deposits to enable the installation methods.

Description of the project

The project consists of the installation of subsea umbilicals, risers and flowlines (SURF) for phase 1 of the Rosebank development and the associated protection and stabilisation deposits.

Gas Export Pipeline PL6570

The Gas export pipeline route is approximately 84.5km and starts within the Rosebank in-field area at the Gas Export riser base in block 213/27, passing through licenced blocks 205/1, 205/2 and additional unlicensed blocks until reaching the Clair field connecting to the West of Shetland Pipeline System (WOSPS) at the Clair Tee tie in point located in block 206/13. The installation will include pipeline protection deposits consisting of glass fibre reinforced polymer (GRP) covers, mattresses, clean inert rock and grout hessian bags. Clump weights will also be used to aid the pipeline installation. The pipeline will be surface laid and then trenched using a jet trenching machine which will lower the pipeline to a minimum 0.6 meters. Where jet trenching is not suitable, or where backfilling has provided insufficient cover, rock placement will be utilised as protection.

The gas export system includes a riser section. A Z-shaped spool piece connects the gas rise base to the gas export pipeline end terminus (PLET). A section of the rigid gas export line will be laid to an in-line tee structure for potential future tie ins. The spool and PLET section will be installed via the construction vessels and will be



connected using a Remotely Operated Vehicle (ROV).

The tie in at the Clair Tee will be carried out by divers and will require various items of various items of temporary equipment such as clump weights, lift air bags, grout bags and work baskets.

Additional SURF infrastructure

The additional SURF infrastructure to be installed in Phase 1 is within the Rosebank in-field area located within the licenced UKCS blocks 213/26b and 213/27a (licence P1026), Block 205/1a (licence P1191), and block 205/2a (licence P1272) and consists of the following:

Water injection pipeline PL6561

The water injection pipeline will link the FPSO to the satellite water injection wells I, J and K and will be installed from a dedicated pipelay vessel, positioned according to precise maritime coordinates to ensure proper alignment and connection to the subsea systems. An initiation pile will be installed temporarily to secure the pipeline position during install. A clump weight will be placed at the opposite end to guide the pipeline into final position. This install will also be supported by sleepers to mitigate buckle control. The jumpers associated with the water injection pipeline will be wet stored on the seabed for ~ 1 month pending final connection.

Water injection pipeline PL6562

PL6562 is a flexible water injection flowline. The installation may be utilising construction vessels with an underdeck carousel which passes the flowline over a vertical lay system and through the moonpool to the seabed.

Pipeline PL6563

PL6563 is a combination of rigid pipeline which will be laid with the dedicated pipelay vessel and a flexible jumper which will be installed with the construction vessels.

Gas riser base (GRB)

The GRB will be installed on the seabed from the construction vessel by crane lift. Temporary equipment will be placed on the seabed to control the operations.

Production pipelines PL6571 and PL6569

PL6571 and PL6569 are flexible flowlines to connect the wells at templates B, C and D to the processing facilities. These flexible lines will be installed via the construction vessels.

Umbilicals PLU6564, PLU6565, PLU6566 and PLU6567

The umbilicals will be laid on the seabed using the reel, vertical lay system and moonpool arrangement via the construction vessels and connections made using a ROV. Turning bollards will be used to guide the umbilicals into location. An umbilical riser base will also be installed on the seabed via rigging and crane lift from a construction vessel monitored by ROV.

Flowbases

Three flowbases will be installed as part of this scope of work on top of the three foundation satellite structures for water injection wells I, K and K. The impact of the physical presence of the foundation satellite structures was quantified and assessed within CL/1460 and as such does not form part of this assessment. A general-purpose basket will be temporarily set down on the seabed in the vicinity of the satellite structures in support of this install. This temporary impact has been included in the assessment.

Location of the project

The scope of operations is assessed at two separate locations; the Rosebank in-field area and the route for the gas export pipeline from the in-field area to the tie in point at Clair. The in-field area is located 130 km west of Shetland and in the deep waters for the Faroe-Shetland Channel. The export pipeline starts at the Rosebank field and then ascends the eastern flank of the Faroe Shetland Channel continental slope up on the West Shetland Continental Shelf.

The region is exposed to significantly stronger winds and sea conditions than other regions of the United Kingdom Continental Shelf (UKCS). Winds of > 8m/s are recorded 70% of the time in winter and 30% of the time in summer. Currents are stratified through the water column given the exceptional depths of over 1,000m in the region. The mean residual current surrounding the Rosebank area are approximately 0.2m/s with the currents on the shelf variable with mean surface and seabed currents being 0.23 m/s and 0.16 m/s respectively recorded at Clair. Seabed temperatures of 1.50C have been recorded in May with seasonal variations. Surface salinity has an annual average of 35‰. Wave direction is consistent travelling from Southwest to Northeast or west to east. Wave height reaches a mean of 4.1m and a maximum of 15.1m in January and a mean of 1.7m with a maximum of 6.3m in July.

The Faroe-Shetland Channel forms a narrow deep trough, orientated south-west to north-east, separating the Faroe Shelf from the West Shetland Continental Shelf to the east and the Wyville Thomson Ridge and several isolated banks to the south.

The Rosebank field is located on the continental slope (between the outer edge of Continental Shelf and the deep ocean floor) that forms the eastern flank of the Faroe-Shetland Channel in a water depth of approximately 1,100 m. The gas export pipeline route ascends the slope for approximately 62km up to the shelf break, assumed to be at 200m water depth, and continues along the West Shetland Continental Shelf for approximately 22km. Water depths along the gas export pipeline route from the shelf break to the Clair Tee tie in point gradually decrease



from 200m to around 130m.

Seabed sediment is predominantly deep-sea mud and deep-sea mixed substrata within the Rosebank field and the deeper areas of the export pipeline route. Sediments become coarser further up the slope and classified as deep circalittoral coarse sediment and coarse sand. Evidence suggests the presence of subtidal sands and gravels which are a Scottish Priority Marine Feature (PMF) and a designated feature of the Faroe Shetland Sponge Belt (FSSB) Marine Protected Area (MPA).

Geophysical surveys summarised the seabed features associated with approximate KP (kilometre point) along the gas export pipeline corridor as follows: KP 0 to KP 40 - flat featureless seabed with scattered boulders; KP 40 to KP 55 - undulating/hummocky seabed with scattered boulders; KP 55 to KP 84 - glacially sculpted seabed with frequent boulders. The surface geology along the route was summarised as sandy clay, clayey sand, sand and gravelly sand.

Total Organic Carbon (TOC) at the in-field area ranged from 3.2 to 4.4 mg/kg with Total hydrocarbon (THC) in sediments ranging from 1.3 g/g to 34.6 g/g. THC measured noticeably higher (27.2 g/g) at two survey locations and evidence indicates that this is owing to the presence of an elevated unresolved complex matrix, reflecting possible weathered hydrocarbon inputs.

The Gas export pipeline route (the continental slope and shelf), has TOC values ranging from 0.23 to 0.30% and 0.22 to 0.53% on the continental slope and 0.21 to 1.8% and 0.15 to 0.34% on the Continental Shelf.

THC levels tended to increase with water depth as did the quantity of fines (silt/clay) in the sediments, which is expected due to the bonding affinity of THC to finer particles. THC levels ranging from 3.0 to 7.3 g/g was recorded along the gas export pipeline route from the Rosebank field to the shelf break. Levels of THC were very low on the Continental Shelf (< 200m depth), ranging from 0.4 to 0.8 g/g and 1.76 and 2.76 g/g.

Concentration of metals were generally low and as expected for baseline samples. There was a general trend of increased concentrations with depth, as can be expected due to higher amounts of fine particles to which the metals can adhere. Concentrations of all heavy and trace metals varied considerably over the entire gas export route survey area, the majority showing a positive correlation with the proportions of fines in the sediment. Levels on the Continental Shelf portion of the route were the lowest and deemed to represent background concentrations.

The benthos within the infield region located in the Faroe-Shetland Channel has a muddy seabed with sparsely distributed stones with attached stalked sea squirts, sponges, and soft corals, while the lower slope (>600 m) supported large polychaetes, brittlestars and sea spiders. Mobile species such as large sea spiders and occasional scavenging amphipods, together with sedentary burrowing or attached forms such as the soft corals *Primnoa* and *Dendronephthya*, colonial

hydroids, burrowing anemones, encrusting sponges, and the carnivorous club sponge *Chondrocladia gigantea* were also found to be characteristic of the area. Polychaetes were recorded as dominating the fauna, representing 65% of the total number of individuals and 42 % of the number of taxa recorded.

The Gas export route (the continental slope and shelf) has a moderate to highly diverse and abundant infaunal community. The most dominant phylum was Annelida, with the top three most abundant species being the polychaete worms *Paramphinoe jeffreysii*, *Notoproctus* and *Chaetozone jubata*. Univariate analysis indicated a large variation in species richness and abundance of individuals throughout the survey area.

The gas export route transects the Faroe Shetland Sponge Belt MPA. The MPA is designated for the following features including, Deep-sea sponge aggregations, offshore subtidal sands and gravels and Ocean quahog aggregations. An increased contribution of sponge species was recorded in the MPA. At 2 consecutive survey stations, the highest relative contribution of sponges was observed however the composition data indicates that this is not typical of the entire pipeline route length and that the deep-sea sponge aggregations appeared to be confined to the bathymetry contour in which they were found.

Ocean Quahog are considered of conservation importance in Scotland and designated as Scottish PMFs. No specimens of ocean quahog (*Arctica islandica*) were identified in the sampled material from the relatively shallower waters of the Continental Shelf heading towards the Clair Tee Tie in pipeline termination point.

The Rosebank in-field area lies within the International Council for the Exploration of the Sea (ICES) rectangle 50E6 in depths of >500m. and is spawning and nursery grounds for Blue Whiting, Ling, Mackerel and Norway Pout.

The Gas export route (Continental Shelf) transects ICES rectangles 50E6, 50E7 and 51E6 and is known nursery grounds for anglerfish, blue whiting, cod, common skate, European hake, herring *Clupea*, ling, mackerel, Norway pout, spurdog, and whiting. Of these species, anglerfish, blue whiting, herring, and mackerel use the area at a high intensity at times throughout the year.

Commercial fisheries data is available for 50E6 and 50E7, representative of both the in-field area and the export route. The demersal catch is considered high and pelagic moderate compared to all ICES rectangles in the landings dataset and these trends are reflected in the values data. Fishing effort is highest within ICES rectangle 50E7 located within the shallower section of the development and covering the southern section of the pipeline route. Fishing effort in ICES rectangle 50E6 is comparably lower.

Eight seabird species are thought to occur regularly over the deep waters west of Shetland throughout the year; these are the northern fulmar, northern gannet, black-legged kittiwake, Atlantic puffin, great black-backed gull, common guillemot, herring gull and razorbill. A further seven species occur primarily in the summer



months; these are the European storm petrel, lesser black-backed gull (moderate to high densities of which have been recorded along the shelf edge before the breeding season), Leach's storm petrel Manx shearwater, Arctic tern (more often a nearshore species), Arctic skua and great skua.

Atlantic white-sided dolphin, harbour porpoise, killer whale, long-finned pilot whale, minke whale, Risso's dolphin and white-beaked dolphin have been recorded in the Faroe Shetland Channel and the continental slope and shelf. Killer whale, white-beaked dolphin and harbour porpoise are the most frequently recorded species within the Rosebank area, with recorded sightings all year round ranging from low to high densities. All species that have been sighted in the vicinity of the Rosebank area are listed as European Protected Species (EPS) under the Habitats Directive and as Scottish PMFs. In addition to this, harbour porpoise is also listed as an Annex II species under the Habitats Directive.

Six species of pinniped have been identified in the WoS area which includes the Rosebank field and the gas export pipeline route; these are the bearded seal, grey seal, harbour seal, harp seal, hooded seal and ringed seal. Whilst none are likely to be sighted in large numbers at great distances offshore, there are three species that are more likely to be encountered in the vicinity of the Rosebank along the pipeline route area than others, namely grey, harbour and hooded seals. Grey and harbour seals both live and breed in UK waters and are protected under Annex II of the EU Habitats Directive.

The Rosebank in-field area is 24 km North west of the FSSB MPA with the gas export route passing directly through the MPA. The FSSB MPA is designated for aggregations of the OSPAR threatened and/or declining habitat of deep-sea sponges. It is also designated for offshore subtidal sands and gravels, presence of ocean quahog, large scale continental slope features, and features representative of the West Shetland Margin Paleo-depositional system Key Geodiversity area, including continental slope channels, iceberg plough marks, prograding wedges, slide deposits, sand wave fields, and sediment wave fields.

Other offshore conservation sites are the North East Faroe Channel MPA to the north, the West Shetland Shelf MPA to the south, the North-west Orkney MPA to the south east, and the Seas off Foula Special Protection Area (SPA).

Shipping activities in north west Shetland are low compared with the North Sea and English Channel. Shipping activity around the Rosebank area is negligible to low. Commercial vessels in the area include those en route to/from Sullom Voe and cruise liners and ferries between the Faroe Islands and Shetland or Denmark.

Vessel density in the continental shelf area is also low with localised areas of moderate to high vessel activity to the north east of the southernmost part of the gas export pipeline route associated with offshore oil and gas activity at the Clair and Clair Ridge platforms.

There are a number of other oil and gas activities within the vicinity of the scope of

works, mostly in proximity to the export pipeline. Clair, Clair Ridge, Laggan-Tormore, Edradour and the West of Shetland Pipeline System are within 35km of the pipeline.

There are no military exercise areas or danger areas in the vicinity of the development.

The gas export pipeline route crosses three cables; Farice1 cable, SHEFA-2 Cable and an unnamed cable#2. Crossing agreements are in place.

There are no wrecks designated under the Protection of Military Remains Act 1986 located within the proposed development area. The wreck of the Bourbon Dolphin lies to the north of the infield development area outside the zone of operations.

Given the location of the project, it is not likely that the areas identified at paragraphs 2(c)(i), (iii), (iv), (vi), (vii) of Schedule 5 to the Regulations will be affected by the project.

Type and Characteristics of the potential impact

Seabed and benthic impact

Rosebank In-field area

The footprint of the installation of the in-field SURF infrastructure and associated temporary deposits is 0.034km². This is less than that assessed within the Environmental Statement (ES/2022/001) as the number of mattresses required for the infield cable and flowline crossing points has reduced by 64. The dimensions of the subsea infrastructure were accurately presented in the ES and there is no proposed material change.

Twenty three turning bollards will be used to direct and control the installation of infield pipelines, reducing the risk of additional seabed impacts caused by movement and incorrect positioning of the pipelines. The turning bollards are 1 tonnes bags filled with inert sand. To negate the risk of additional crane lifts and to ensure no lifting risk from degradation of the bags, they will be slashed at the seabed with the sand deposited at the bollard location. No additional impact over the 33.12m² from the bollard placement is expected. As this is an extremely small quantity of inert material, it does not propose any risk of pollution to the surrounding sediments.

The sediment type and metocean conditions at Rosebank suggest seabed recovery will be slow in comparison to shallower and higher energy environments. However, the total area potentially impacted is very small compared to the wider marine area and there could be some recovery through natural sediment redistribution processes. There are no conservation sites in the vicinity of the infield area and it is considered that there is unlikely to be a significant effect on the environment from the installation of subsea infrastructure at the Rosebank infield area.



Gas Export Pipeline

The total seabed area directly impacted by the installation of the export pipeline is 0.37km². This includes the temporary deposits, GRP covers, Mattresses, Grout bags, rock cover/jet trenching and surface laid pipe.

For water depths <800m, the pipeline will be buried via trench or rock cover, for depths >800m the pipeline will be surface laid as over trawl is not a risk at such depths. A width of 6m is used for the jet-trenching and rock burial as worst case, the rock berm design is 6m however the jet trench will have a diameter of 2m with tracks of up to 6m. There are an additional 19 mattresses within the scope of operations as well as the addition of the GRP covers to protect the Clair Tee spool piece. The assessment in the ES allows for 0.61km². This reduction of 0.24 km² is owing to optimisation in the design of rock berm reducing the quantity of rock dump required.

The immediate effect of pipeline installation, whether by trenching or surface lay and rock cover, is permanent change to the seabed characteristics and mortality and injury of benthic and epibenthic species within the footprint of the installation area. The pipeline route is characterised by heterogeneous seabed conditions indicative of the variability in water depths. In water depths greater than 800m (KP0 to KP24 - approximately), seabed sediments comprise soft sandy clay with occasional gravel and boulders classified as deep sea mud (EUNIS A6.5). These sediments are sensitive to physical pressures such as substrate changes. This section will be surface laid, and no protection is therefore planned for this section. The area of seabed in regions >800m depth impacted by pipeline installation is estimated to be 0.006 km² (24 km of pipeline with an external diameter of 273 mm) and it is very unlikely that there will be significant disturbance to the deep-sea muddy sediments from pipeline installation in this deep-water section. Between pipeline points, KP24 - 84 water depths are <800m. In this area, pipeline installation will result in seabed disturbance comprising direct mortality of sessile species and loss of and/or change in the original seabed habitat, along with the creation of an alternative habitat where rock cover adds hard substrate. Additional indirect effects through the settlement of disturbed seabed sediments in the vicinity of the operations may occur. The impact of sedimentation on benthic species not directly within the impact corridor may result in negative effects on their feeding and respiratory systems. As the West of Shetland is an energetic environment with the convergence of several water masses, it is likely that species have an intermediate tolerance to increased sediment loading. Recolonisation is expected over the buried section of pipeline. The seabed impacted by pipeline installation activities represents a very small area compared with the availability of similar seabed habitat types in the West of Shetland marine region and it is considered very unlikely that installation activities will significantly affect populations of benthic species. This introduction of alternative materials to the baseline environment may lead to different communities colonising the area around the rock or mattresses. Consequently, it may result in increased species diversity and the provision of a refuge for benthic species over time.

Approximately 29km of the pipeline will be laid within the FSSB MPA. The

north-western boundary of the FSSB MPA is broadly delineated by the 800m bathymetry contour and, therefore, the pipeline will require protection from over-trawl in the MPA either by burial in the sediments by jet trenching or Subsea Rock Installation (SRI). The maximum area of the MPA directly impacted by the pipeline installation and mattresses for cable crossing is 0.174km². This constitutes 0.003% of the MPA. The operator has demonstrated route optimisation through modelling and positioning of the pipeline. It takes the most direct route between the Rosebank field and the tie in point at Clair. A previous campaign of boulder clearance conducted under a marine licence has removed all boulders which would obstruct the route. Although sponges may be present on these boulders, the impact assessment concluded that it is likely that sponges also exist on the coarse sediments along the pipeline route at water depths less than approximately 550 metres (DNV 2022) and that these individuals will be impacted by pipeline operations within the MPA.

Sponge species were identified at survey stations within the MPA with potential deep-sea sponge aggregations observed at two survey stations. The densities were recorded as generally low to moderate and aggregations generally spread over smaller areas. Survey observations and the environmental literature indicate that deep sea sponge aggregations (DSSA) are most likely to occur in water depths between 450 to 550 metres which corresponds to a 10 km length of pipeline between KP 40 and KP 50. This conclusion is backed by survey data that indicates that assuming that there are DSSA's or DSSA habitat within the 6m pipeline corridor, the area of the MPA which both contains the DSSA habitat and is impacted by pipeline installation is 0.06 km² or 0.001% of the total MPA area. Sponges are considered to be sensitive to smothering via sedimentation. The indirect impact of sedimentation has been observed to have an impact window of 32 days after which the sponges recovered.

It is unlikely that the pipeline installation activities will have a significant adverse effect on the extent and distribution of this habitat in the OSPAR areas.

The operator has committed to additional quantitative assessment via survey data pre and post installation of the pipeline. The visual data will be analysed in accordance with the SACFOR density and abundance scale and assessed corresponding to the Henry & Roberts methodology criteria. A report summarising the observations and the statistical analysis, including a semi quantitative habitat impact assessment will be submitted to the Department, by the end of 2025. This information will be available to inform on the status of the protected features within the MPA.

Atmospheric emissions

The installation activities will be carried out by nine different vessels (excluding guard vessels) over 110 days. It is estimated that the worst case CO₂ would be 36,810 tonnes. UK territorial emissions statistics indicate that estimated greenhouse gas emissions for shipping in 2022 were 5.8 million tonnes CO₂eq. All the vessels contracted during the proposed campaign operate according to a Ship Energy Efficiency Management System (SEEMP) and fuel use is monitored according to vessel operations and transit speeds. A Dynamic Positioning System will be used



during infield installation operations to ensure accurate and safe location which requires slightly higher fuel consumption and this is accounted for in the daily fuel consumption estimate.

Transit speeds will be optimised to and from location to minimise fuel use which is monitored via a cloud based digital system. Vessel operations are optimised through dynamic schedules and forward planning to ensure that operational up-time is maximised and installation operations are carried out timeously and efficiently, which includes fuel efficiency.

Other Users of the sea

The potential impact of the subsea installation activities on 3rd party users of the sea is considered to be low and the risk to mariners during installation operations is being mitigated. The SURF campaign vessels operate standard marine operating procedures regarding navigational practice and preventing collisions at sea as in accordance with UK maritime regulations and guidance issued by the Maritime and Coastguard Agency. The HAZID/ENVID process carried out for the installation campaign did not identify specific additional mitigation requirements in relation to mitigation of collision risk during SURF installation activities. An Offshore Development Area (ODA) has been created in the Rosebank location. ODAs cover the initial construction phase and are a means of advising mariners not to enter particular offshore areas because of potentially high levels of activity associated with the establishment of oil and gas installations. Notification to fishing vessels and mariners will be made via the Seafish Kingfisher Bulletin service and UK Hydrographic office prior to works commencing and arrangements for guard vessels are being made for deployment during the SURF installation campaign.

Cumulative Assessment

The WoS region is large with little existing oil and gas activity in the immediate vicinity of the project. There is active drilling within the MPA from the Schiehallion field located 80km to the south west of the pipeline route. The footprint of operations at Schiehallion has been reviewed with the conclusion of no significant cumulative impact reached.

At the closest extent, activities are 15km from the nearest transboundary line and given the nature and extent of the proposed operations, there are no likely transboundary impacts.

Discharge of offshore chemicals have not been assessed as there is no use or discharge associated with the proposed scope of operations. The main risk of accidental release of hydrocarbons is resulting from a loss of diesel inventory from a vessel. The assessment showed that the probability of a diesel spill from a vessel is very low, due to numerous mitigation measures and procedures in place. It is concluded that an accidental release of a hydrocarbon during the project is not considered to have the potential to cause a major environmental incident (MEI) or have a significant effect on the marine environment.

2. Decision

Taking the above considerations into account, the Secretary of State has concluded that the project is not likely to have a significant impact on the environment and that an environmental impact assessment is not required.

3. Mitigation of significant effects

The following are features of the project or measures envisaged that the developer has proposed to avoid or prevent what might otherwise have been significant adverse effect on the environment:

Not applicable.