PL10 Marine Licence Application: Supporting Technical Note

CONTENTS

Abbreviations

“	Inch
%	Percent
BAT	Best Available Technology
BEP	Best Environmental Practice
CH_4	Methane
CNRI	Canadian Natural Resources International
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
DESNZ	Department for Energy Security and Net Zero
DP	Dynamic Positioning
E&P	Exploration and Production
EPS	European Protected Species
EU	European Union
EUNIS	European Union Nature Information System
INTOG	Innovation and Targeted Oil and Gas
JNCC	Joint Nature Conservation Committee
kHz	Kilohertz
km	Kilometre
km^2	Square Kilometre
LAT	Lowest Astronomical Tide
m	Metres
m^2	Squared metre
m^3	Cubic metre
MD-LOT	Marine Directorate - Licensing Operations Team
MSV	Multipurpose Support Vessel
NCP	Ninian Central Platform
NC MPA	Nature Conservation Marine Protected Area
NMP	National Marine Plan
NMPi	National Marine Plan interactive
NOx	Nitrous Oxides
N_2O	Nitrogen Dioxide
NSTA	North Sea Transition Authority
PL	Pipeline
PMF	Priority Marine Feature
ROV	Remotely Operated Vehicle
SAC	Special Area of Conservation
SCANS	Small Cetaceans in European Atlantic waters and the North Sea
SO_2	Sulphur Dioxide
SPA	Special Protection Area
SVT	Sullom Voe Terminal
TDP	Touchdown Point
TTS	Temporary Threshold Shift
UK	United Kingdom
UKCS	United Kingdom Continental Shelf
VOC	Volatile Organic Compound

1 Introduction

1.1 Document Purpose

This technical note has been prepared to support the Marine Licence (ML) application for remediation works required along an identified free span of a section of oil export pipeline 'PL10'. The proposed scope of work involves the placement of rock and/or filter bags filled with rock from a Multipurpose Supply Vessel (MSV) to remediate the free span, and as such, a Marine Licence is required under the Marine (Scotland) Act 2010 for the deposit of rock or bags filled with rock within the Scottish inshore region. This document considers the effect of the proposed operations on the receiving environment and other sea users, as well as the policies in Scotland's National Marine Plan (NMP).

1.2 Project Background

EnQuest Heather Limited (hereafter referred to as EnQuest) are the owners and operators of PL10, a 36" oil export pipeline, 175 km in length, connecting Canadian Natural Resources International's (CNRI) Ninian Central Platform (NCP) to Sullom Voe Terminal (SVT) in mainland Shetland. The pipeline carries crude oil from Ninian, Columba BD, Columba E, Lyell, Strathspey, and Magnus Fields. PL10 is surface laid and concrete coated for protection.

PL10 is located in United Kingdom Continental Shelf (UKCS) Block 207/20, within the inshore waters of the Shetland Islands. PL10 is connected to the Shetland mainland and is approximately 172 km southeast of the United Kingdom (UK)/Faroes boundary line and 172 km west of the UK/Norway boundary line, in water depths ranging between 40 m – 50 m lowest astronomical tide (LAT), as shown in Figure 1-1.

The section of interest of PL10 is the Short Water Crossing (SWC) from Cul Ness in the south to Firth Ness in the north (Figure 1-2).

Following visual inspection along the PL10 pipeline, it has become apparent that there is a 52 m free span, with a central touchdown point (TDP) where the pipeline is resting on the seabed, at one location along the pipeline. As a result, span remediation work is required at the location along PL10 in order to maintain and preserve the pipeline integrity and fatigue life. The span observed along PL10 is located within the inshore waters, approximately 400 m to the nearest shoreline, and is part of Shetland's internal waters.

The remediation work is expected to be completed within 2 days, however, to account for any unforeseen operational or weather-related delays, an operational period of 7 days is assumed for as a worst-case scenario. The proposed operations are planned to commence on the 10th June 2026 at the earliest. This application is for a Marine Licence with a proposed expiry date of 31st December 2026 to allow for any unexpected changes to the operational schedule.

Figure 1-1 Location of PL10 and the identified free span

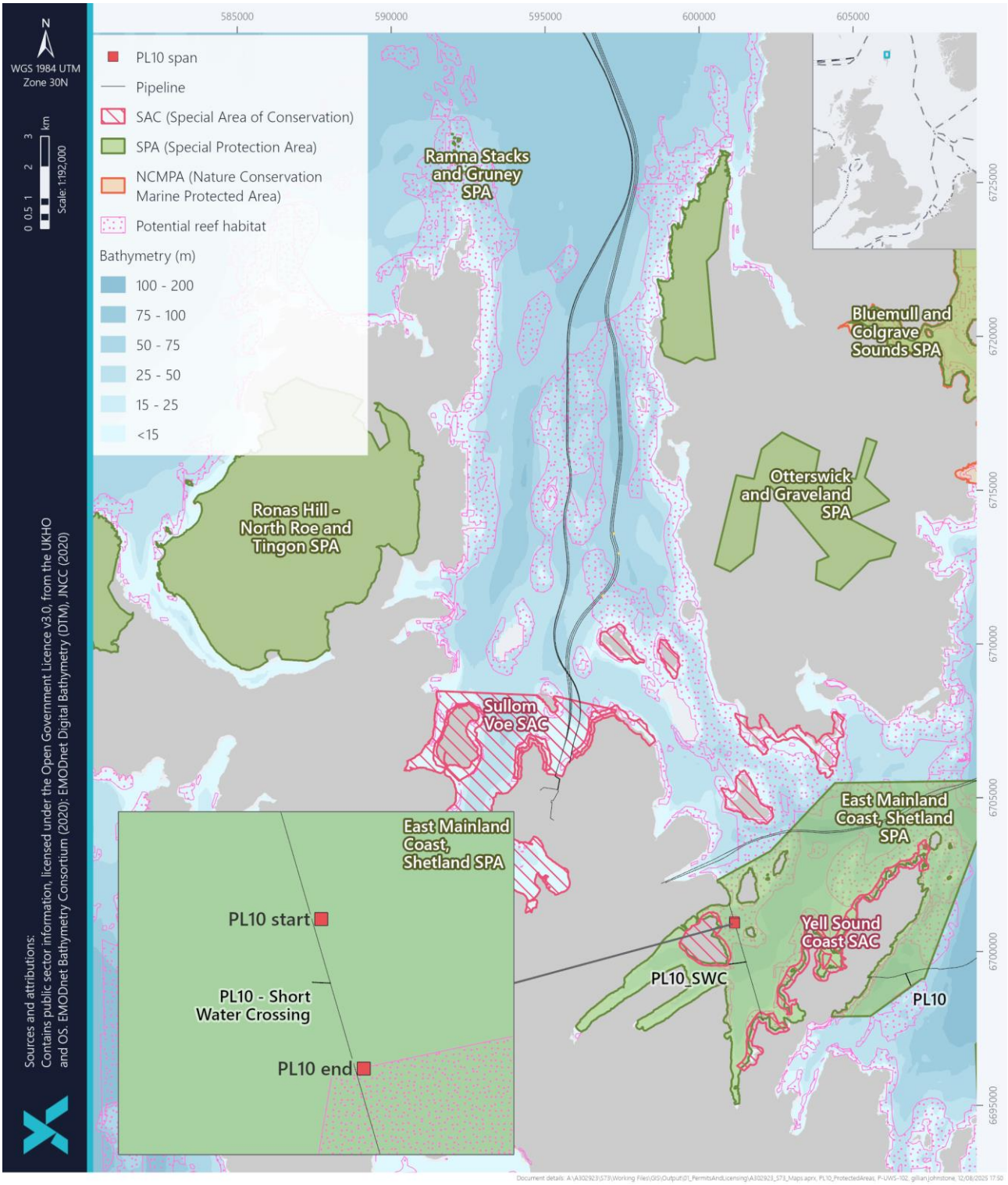
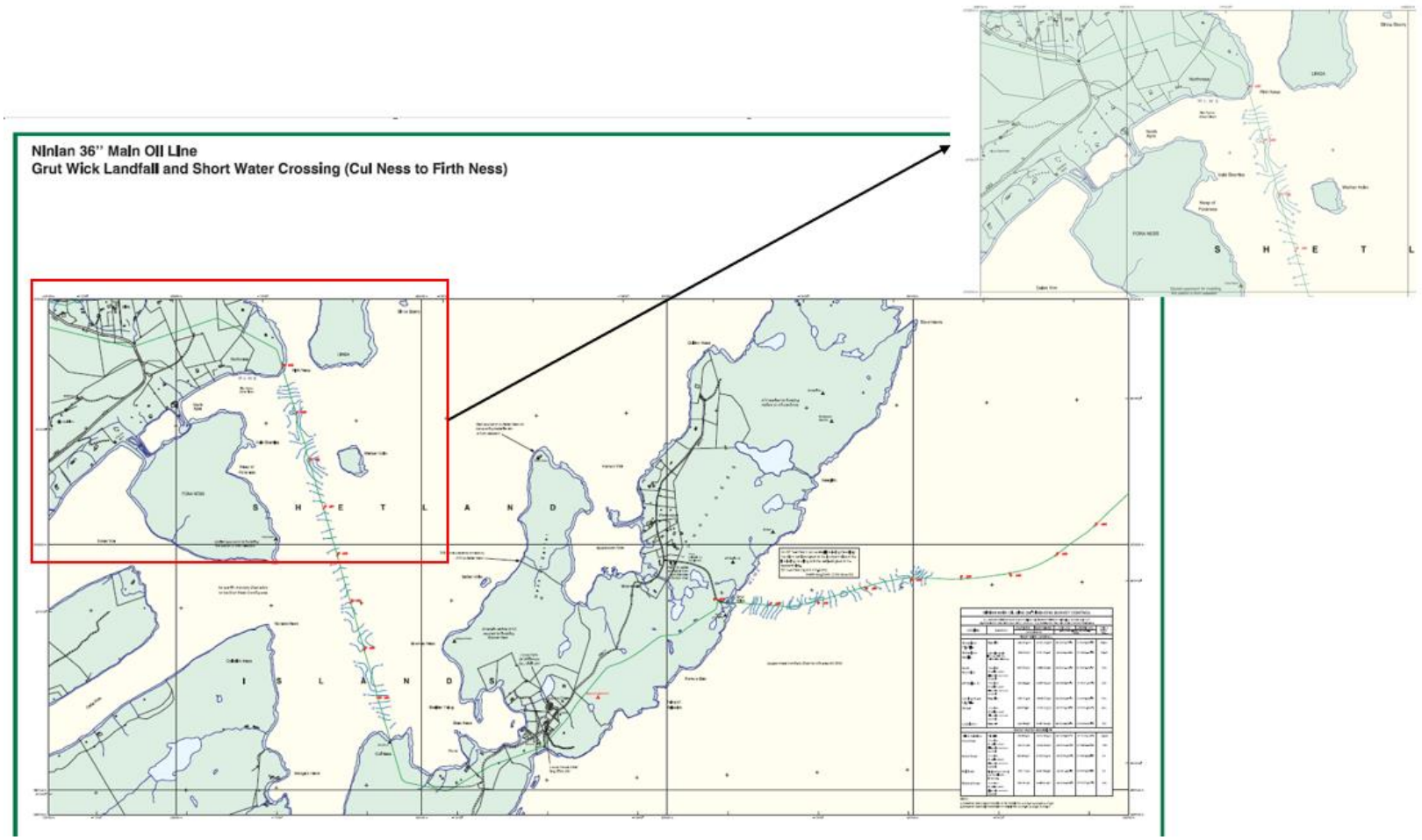


Figure 1-2 PL10 Short Water Crossing (Cull Ness to Firth Ness)



1.3 Project Description

1.3.1 Overview

PL10 undergoes a risk-based inspection on a four-year frequency to monitor the integrity of the pipeline and to detect early changes. The recent PL10 inspection for the SWC section noted five spans that exceed anomaly criteria and posed a potential risk to integrity. The largest span was reported to be 52 m in length with one identified TDP. The spans were subject to Level 3 span analysis which concluded an acceptable utilisation and fatigue life for all spans, however, also identified a vulnerability with the single TDP on the largest span. The loss of this support would pose a significant risk of buckling and ultimately the integrity of the pipeline.

In order to preserve the TDP and mitigate the risk of buckling, PL10 requires the installation of hydrodynamically stable rock to support the pipeline span and avoid local buckling and impacts on the pipeline and surrounding environment. Table 1-1 details the free span dimension at the location that requires remediation.

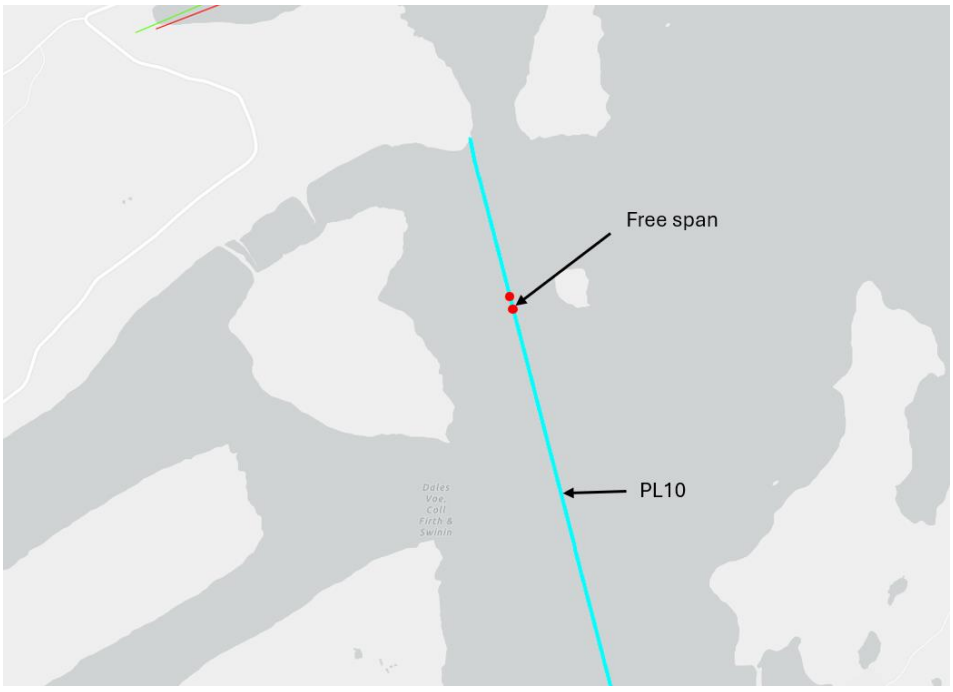
Table 1-1 PL10 free span dimensions

Pipeline	Span ID	Span Length (m)	Span Height (m)	Water Depth (m)
PL10	1	52*	0.52	43
*Total length, however, a single TDP exists. Spanning length either side of this TDP is c. 23 m and c. 28 m.				

1.3.2 Proposed Operations

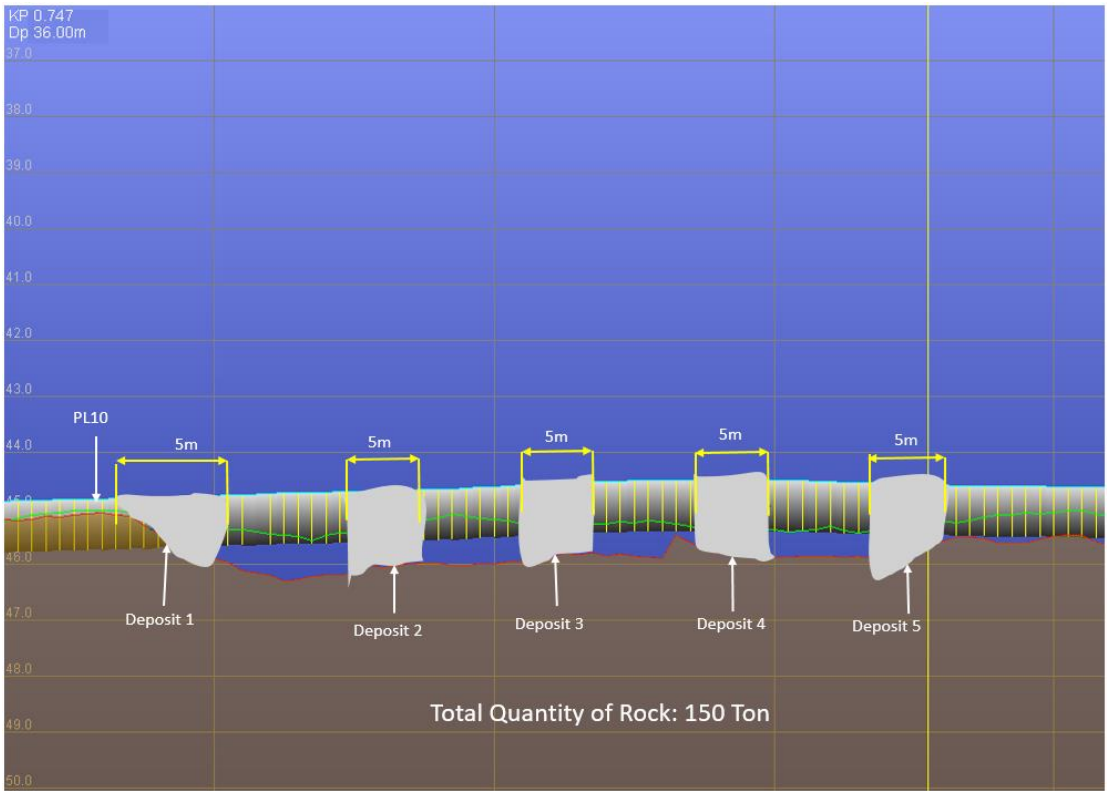
The free span remediation design will include between three and five berms in total, one located centrally on either side of the TDP and an additional berm placed directly next to the TDP to provide support. The location of the span is shown in Figure 1-3.

Figure 1-3 Location of free span along PL10



As the MSV will be operating in waters of 40 m – 50 m, it will utilise 1 or 2 tonne drop bags to ensure accuracy of rock placement. In this method, the rock will be deployed in bags from the side of the MSV and lowered to a position just above the seabed. Once the bag is in position, the rock will then be released via the Remotely Operated Vehicle (ROV). This method will ensure the rock is placed into position on the seabed in the most accurate way possible. Potential rock placement design is shown in Figure 1-4.

Figure 1-4 Potential rock placement design



Alternatively, 2 or 4 tonne filter bags containing loose rock will be placed under and over the span to provide support. A hybrid solution utilising the filter bags and the placement of loose rock may be adopted as shown in Figure 1-5 and Figure 1-6. This will be evaluated once in the operational phase with the best technical solution chosen to remediate the free span. A total of 150 tonnes (including contingency) of material will be used during the remedial works, but the Marine Licence application form section 8 includes full amount of both alternatives to allow flexibility in methodology. Potential filter bag arrangement for both 4 and 2 tonne bags are shown in Figure 1-5 and Figure 1-6.

Figure 1-5 Free span rock placement with 4 tonne rock filter bags

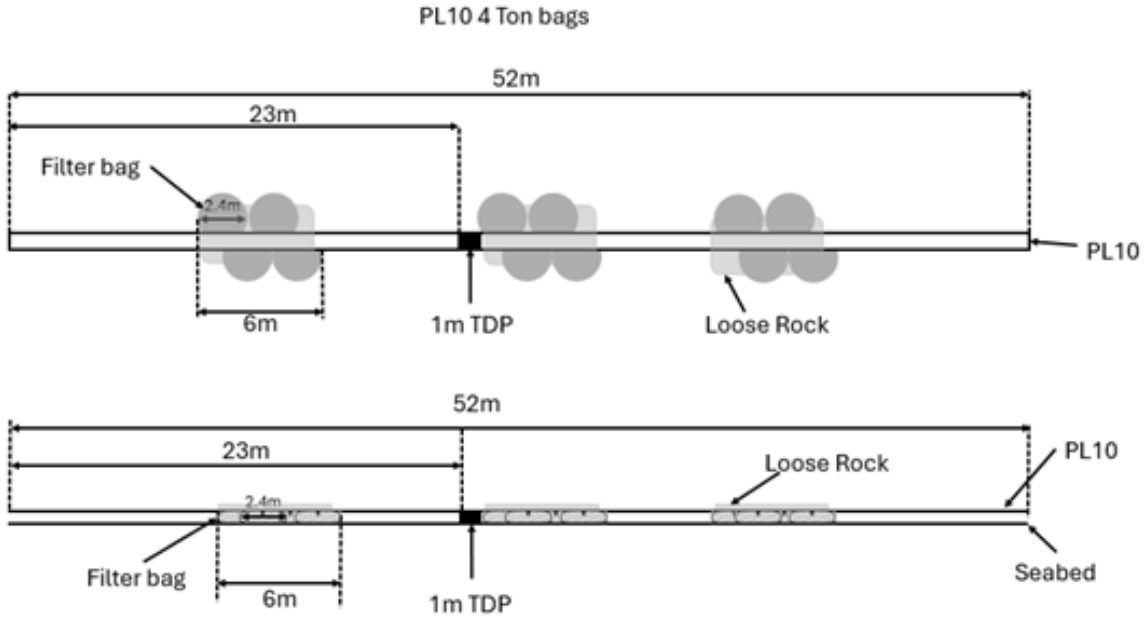
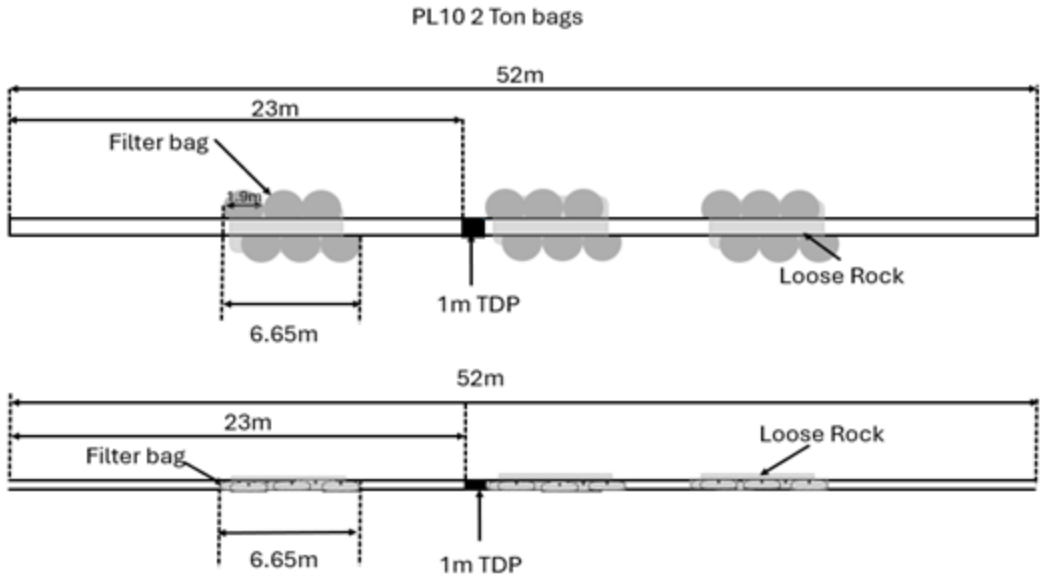
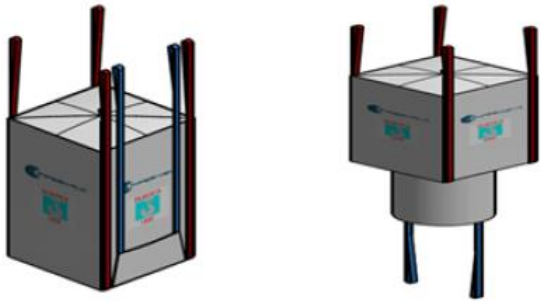


Figure 1-6 Free span rock placement with 2 tonne rock filter bags



In order to reduce any possible impacts on the seabed, the rock material or bags will be placed as accurately as possible. This is one of the key reasons for selection of a drop bag technique; the drop bags will initially be located close to the pipeline from the vessel crane and guided precisely into position by a ROV and released close to the seabed. The ROV also has a camera which is used to monitor the rock placement which provides data in real time. The method allows high confidence in accurate placement of rock.

Figure 1-7 Typical Process of Rock Placement using Drop Bags



Alternatively, a subsea basket (circa 20 ft) may be used to transport the rock material to the seabed. A 20ft basket has a 12 x 1 t rock bag carrying capacity, therefore multiple deployments may be required dependant on the size of basket used. The footprint of the work basket that is likely to be used is 6.5 m x 2.4 m. The basket would be positioned on the seabed temporarily (for a few hours) and disconnected from the crane. The crane would then lift each single bag out of the basket and repeated once all loose rock bags have been deposited at the pipeline location. Basket would be recovered once the operation is completed.

The proposed placement volumes and design are shown in Table 1-2 below. The rock berm volumes have been calculated following visual inspection of the free span to directly estimate the quantities required. There is a contingency applied to the free span to account for potential seabed penetration. The placement operations will cease when these profiles are achieved, or the stated tonnage below is deposited. Contingency is requested to account for potential issues related to soil penetration, settlement during deposit, scour and compaction of rock.

Table 1-2 Proposed placement volume

Pipeline	Span length (m)	Remedial berm length (m)	Remedial berm width (m)	Deposit height (m)	Total weight (including contingency) (tonnes)
PL10	52	6	5.7	1.534	150
		6	5.7		
		6	5.7		

Regular inspection and monitoring of the span will be continued after the remedial work is completed to ensure early changes in pipeline integrity are detected. Additionally, the other free spans along PL10 will also be continued to be monitored for changes. The next regular inspection of PL10 SWC is due in 2028.

2 Environmental Considerations

2.1 Introduction

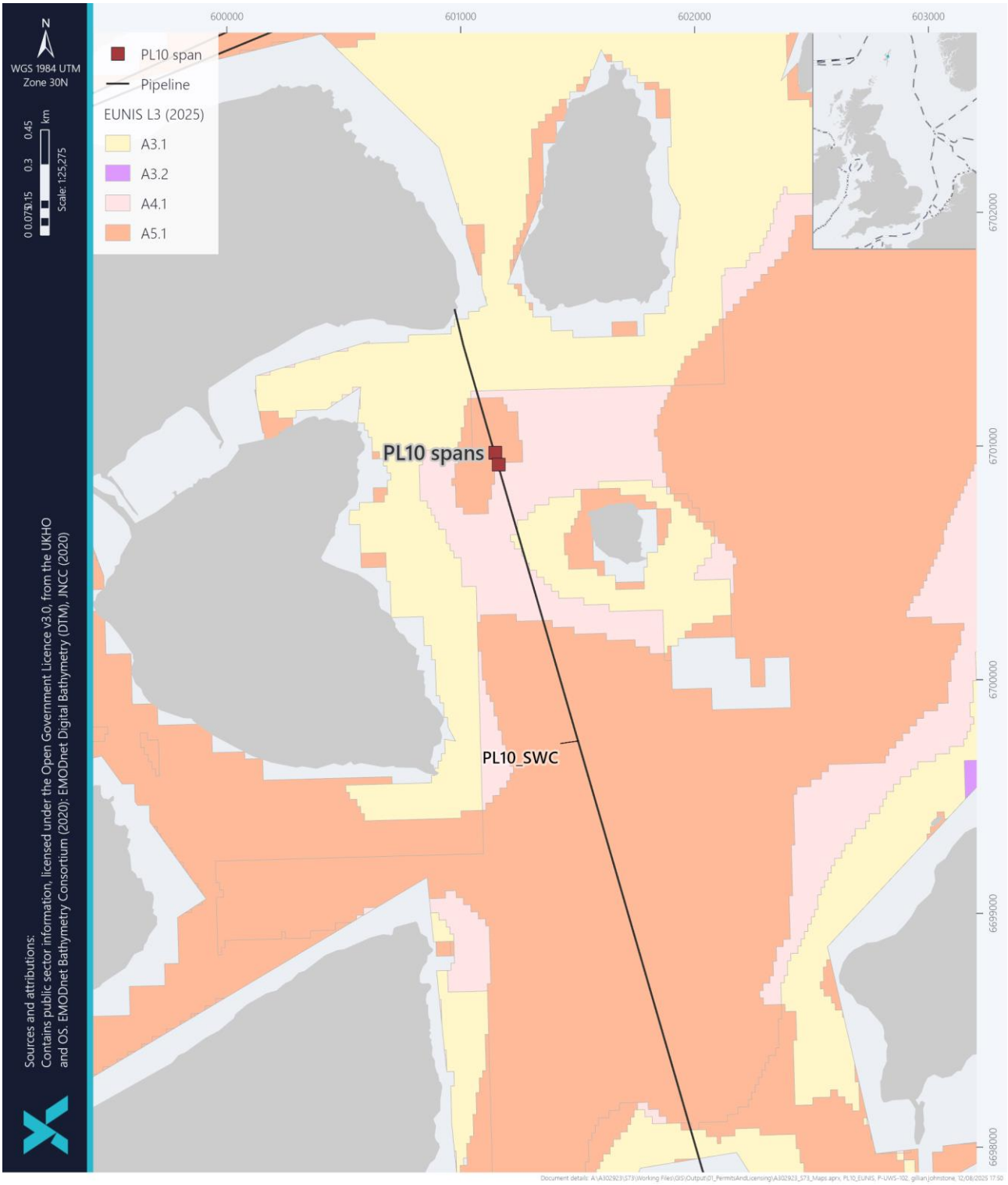
The area of proposed operations covers several European Nature Information System (EUNIS) habitat types (Figure 2-1). The span is mostly in EUNIS habitat A5.1 'Sublittoral coarse sand' which include coarse sand, gravel, pebbles, shingle and cobbles, and is characterized by robust benthic fauna including venerid bivalves. The span also covers EUNIS habitat A4.1 'Atlantic and Mediterranean high energy circalittoral rock'. High local wave and tidal energy level is reflected in the fauna present, with the habitat type supporting sponges such as *Pachymatisma johnstonia*, *Halichondria panicea*, *Esperiopsis fucorum* and *Myxilla incrustans*, the barnacle *Balanus cretanus*, and dense 'carpets' of the hydroid *Tubularia indivisa*. Additionally, the EUNIS habitat A3 'Atlantic and Mediterranean high energy infralittoral rock' is located in the vicinity of the free span. These rocky habitats, exposed to extremely exposed wave action or strong tidal streams, support communities of kelp *Laminaria hyperborea* with foliose seaweeds. The area experiences high wave and tidal energy levels which is why this pipeline is surface laid.

There are several Priority Marine Features (PMF) habitats in the wider area, including 'kelp and seaweed communities on sublittoral sediment', 'low or variable salinity habitats' and 'tide swept algal communities' (NMPi, 2026). 'Kelp and seaweed communities on sublittoral sediment' are often characterised by *Chorda filum* and red algae are also present in the area. 'Low or variable salinity habitats' support fauna adapted to changing conditions, including aquatic plants such as *Ruppia maritima* (Tyer-Walters & d'Aveck, 2015) and 'tide swept algal communities', typically contain *Laminaria digitata* and *Halidrys siliquosa*, which thrive in strong currents and contribute to habitat structure (NatureScot, 2020a). However, none of these PMF habitats are likely to be in the direct footprint of operations (NMPi, 2026).

The proposed operations are also located in the vicinity of two potential Annex I habitats, under the European Union (EU) Habitats Directive 1992 (Council Directive 92/43/EEC). Annex I habitats 'Reefs' and 'Large shallow inlets and bays' are expected in the vicinity of the area of proposed operations (Figure 1-1; NMPi, 2026). Annex I 'Reefs' typically comprised of two main types; those where animal and plant communities develop on rock or stable boulders and cobbles (stony reefs), and those where structure is created by the animals themselves (biogenic reefs), including *Sabelleria* reefs. These habitats vary significantly depending on salinity, depth, and exposure, and often serve as biodiversity hotspots (JNCC, 2025a). Likewise, 'Large shallow inlets and bays' can vary widely in habitat and species diversity according to their geographic location, size, shape, form and geology (JNCC, 2025b). Whilst other Annex I habitats may be present in the wider area, they are not expected to be encountered in the direct footprint of the proposed operations.

Other benthic faunal species present in the wider area include: polychaetes, bivalves, and echinoderms; amphipods; and may include juvenile *Modiolus modiolus* horsemussel beds and sparse epifauna such as sponges, bryozoans and ascidians.

Figure 2-1 EUNIS habitats in the vicinity of proposed operations



2.2 Protected Sites

The proposed operations located approximately <1 km from the coast of Shetland, between Fora Ness and Whether Holm on the eastern seaboard of mainland, Shetland. There are multiple designated sites such as coastal Special Protection Areas (SPAs) designated under the EU Birds Directive (2009/147/EC), Special Areas of Conservation (SACs) designated under the EU Habitats Directive (92/43/EEC) and Nature Conservation Marine Protected Areas (NC MPAs) designated under the Marine (Scotland) Act 2010, located within 40 km of the proposed operations. All sites, including designated features are summarised below in Table 2-1.

Table 2-1 Marine designated sites within 40 km of the proposed operations

Distance (km) and direction	Site	Designated Features	Further Information
0 km (proposed operations overlap SPA)	East Mainland Coast SPA	SPA bird features: Great northern diver *Gavia immer*, Slavonian grebe *Podiceps auritus*, Red-throated diver *Gavia stellata* (JNCC, 2025d).	All features in favourable condition. Site supports internationally important populations of several bird species. It hosts approximately 16% of the British breeding population of Red-throated diver, 7.3% of the British wintering population of Great northern diver, and 4.9% of the British wintering population of Slavonian grebe (JNCC, 2025d).
<1 km southwest	Yell Sound Coast SAC and Yell Sound Coast Site of Special Scientific Interest	Annex II species: Otter *Lutra lutra*, Harbour seal *Phoca vitulina* (JNCC, 2025d).	Harbour seal population represents approximately 1% of the UK population and is in unfavourable condition, but populations are now considered stable (NatureScot, 2024). Otter population dense and of UK importance (up to 25% of Shetland's population). Recent survey work has shown a slight decrease in population (CKOS Solutions, 2024). This is ratified by the fact that otter is also considered to be in unfavourable condition in the SAC (NatureScot 2024).
6 km northwest	Sullom Voe SAC	Annex I habitats: Large shallow inlets and bays, Coastal lagoons, Reefs (JNCC, 2025b).	All Annex I habitats maintained in favourable condition compared to the rest of the UK (NatureScot, 2025).
11 km northeast	Otterswick and Graveland SPA	SPA bird feature: Red-throated diver (JNCC, 2025d).	Supports 3% of British red-throated diver population during breeding season (JNCC, 2025d).

Distance (km) and direction	Site	Designated Features	Further Information
16 km northeast	Fetlar SPA	SPA bird features: Arctic skua *Stercorarius parasiticus*, Arctic tern *Sterna paradisaea*, Dunlin *schinzii* subspecies, Northern Fulmar *Fulmarus glacialis*, Great skua *Stercorarius skua*, Red-necked phalarope *Phalaropus lobatus*, Whimbrel *Numenius phaeopus*, Seabird assemblage (JNCC, 2025d).	Site hosts It hosts approximately 80% of the British breeding population of red-necked phalarope. The site also supports 3.7% of the global population of great skua, 0.8% of the temperate European population of dunlin, and 1% of the British population of Arctic tern. Additional qualifying features include Arctic skua, whimbrel, and northern fulmar, contributing to a total seabird assemblage of over 22,000 individuals. Conservation objectives focus on maintaining population size and distribution, preserving breeding and foraging habitats, and minimizing disturbance during the breeding season (JNCC, 2025d).
16 km northwest	Ronas Hill - North Roe and Tingon SPA	SPA bird features: Red-throated diver, Great skua (JNCC, 2025d).	Supports 4% of the British Red-throated diver breeding population, making it one of the densest aggregations in the UK. Site supports 1% of the western European breeding population of great skua (JNCC, 2025d).
16 km northeast	Fetlar to Haroldswick NC MPA	NC MPA features: Black guillemot *Cepphus grylle*, Circalittoral sand/coarse sediment, Horse mussel beds, Kelp/seaweed communities, Maerl beds, Shallow coarse sands (NatureScot, 2014).	Features considered sensitive but stable; black guillemot population robust (NatureScot, 2014).
18 km northeast	Bluemull and Colgrave Sounds SPA	SPA bird features: Red-throated diver (JNCC, 2025d).	Site is in favourable condition and supports over 190 pairs of breeding red-throated divers, representing approximately 15% of the British population.
21 km northeast	Hascosay SAC	Annex I habitat: Blanket bogs. Annex II species: Otter (JNCC, 2025c).	Blanket bog deemed to be fabvourable and maintained whilst condition deemed to be unfavourable but stable (NatureScot, 2005b).

Distance (km) and direction	Site	Designated Features	Further Information
23 km southwest	The Vadills SAC	Annex I habitat: Coastal lagoons (JNCC, 2025c).	Lagoon system diverse and considered to be in stable and favourable condition. (SNH, 2006a).
25 km northwest	Ramna Stacks and Gruney SPA	SPA bird feature: Leach's petrel *Hydrobates leucorhous* (JNCC, 2025d).	Site is in favourable condition and supports a small but significant breeding population of Leach's storm petrel, with approximately 20 pairs, representing less than 0.1% of the British population (JNCC, 2025d).
28 km southwest	Papa Stour SAC	Annex I habitats: Reefs, Submerged or partially submerged sea caves (JNCC, 2025c).	Reefs and caves favourably maintained (SNH, 2006b).
30 km southeast	Noss SPA	SPA bird features: Atlantic puffin *Fratercula arctica*, Northern fulmar, Northern gannet *Morus bassanus*, Black-legged kittiwake *Rissa tridactyla*, Great skua, Common guillemot *Uria aalge* (JNCC, 2025d).	This site supports 3% of the Western European population of great skua, 3% of the Western European population of northern gannet and 1% of the Western European population of common guillemot. During the breeding season, it supports approximately 35,000 birds, including common guillemot, Atlantic puffin, northern fulmar, northern gannet, great skua, and black-legged kittiwake (JNCC, 2025d).
30 km southwest	Papa Stour SPA	SPA bird features: Arctic tern, Ringed plover *Charadrius hiaticula* (JNCC, 2025d).	The site supports an average of 850 pairs of Arctic tern, representing around 2% of the British population. It also hosts 89 pairs of ringed plover, which equates to 1% of the British population and 0.37% of the Europe/North Africa biogeographic population (JNCC, 2025d).
34 km northeast	Pobie Bank Reef SAC	Annex I habitat: reefs (JNCC, 2025c).	Site also supports Annex I species including grey seal, harbour seal and harbour porpoise (JNCC, 2025c).

Distance (km) and direction	Site	Designated Features	Further Information
34 km northeast	Hermaness, Saxa Vord and Valla Field SPA	SPA bird features: Northern fulmar, Northern gannet, Great skua, Common guillemot, Black-legged kittiwake, Atlantic puffin, Red-throated diver, shag (JNCC, 2025d).	Site supports 6% of great skua, 6% of northern gannet, 3% of Atlantic puffin, and 3% of red-throated dive of British breeding populations (JNCC, 2025d).

2.3 Seabed Disturbance

Activities which have the potential to cause seabed disturbance during the proposed operations are the installation of remedial rock at the free span along the PL10 oil export pipeline. This has the potential to impact on the seabed through:

- Direct loss of habitat within the footprint of deposited materials; and
- Introduction of new habitat.

Re-suspension of sediments is not considered to occur to any significant extent from the deposition of remedial rock. This is due to the fact that the rock will be placed carefully in position using drop bags from the MSV and will be close to the seabed which is primarily hard seabed, not soft sediment. Rock within the deposited bags may introduce some dust but this will likely disperse fast, is of limited amount and will be contained within the bags so any material released is likely to be incidental.

The estimated area of seabed disturbed directly by the planned activities is given in Table 2-2, along with the location and type of infrastructure and associated deposits. The following assumptions have been made:

- Rock placement at the free span will be 3 deposits of 6 m in length and 5.7 m in width; so each berm will impact an area of 34 m^2.

Table 2-2 Summary of Seabed Impacts from the Proposed Operations

Location	Source of Impact	Quantity (tonnes)	Area of Direct Disturbance (m^2)
PL10 free span	Rock placement	150	103
		TOTAL	103

The placement of loose rock and / or rock filter bags on the seabed could result in direct physical impact to benthic habitats and species within the immediate footprint of the operation. The seabed is inhabited by numerous organisms, including sessile species and animals that are unable to move rapidly or over large distances. Whereas mobile fauna (e.g. crustaceans) may be able to vacate an area following a disturbance, sessile fauna will be unable to move and may subsequently be lost.

The potential direct area of seabed affected by the proposed operations amounts to 103 m^2. This area is relatively small, representing a minute fraction of the sediments available in this region. The proposed area of operations are typical of the wider area; characterised by coarse sand (NMPi, 2026). It is expected that the seabed deposits will cause mortality of some individuals, impacts to the benthic communities on a large scale are not expected.

For any activity directly impacting the sea floor, if the affected area is large, it will take a longer time to recolonise through larval dispersion settlement, whereas if it is small, organisms can recolonise quickly by migration into the area from adjacent undisturbed seabed and therefore recovery is more rapid (Løkkeborg, 2005). Studies reviewed by Løkkeborg (2005) have concluded that biological recovery can take place even though physical seabed scarring may still be visible. Therefore, in spite of the relatively quiescent environment, impacts will be minimised by the small and localised disturbance created by the proposed operations.

The new stable hard substrata will represent introduced novel habitat and will be colonised over time by epifaunal or encrusting animals. This has been reported on other North Sea oil and gas locations, where calcareous and encrusting seaweeds, tubeworms and barnacles, together with bryozoans and hydroids have

colonised the introduced hard substrata (e.g., Forteath *et al*., 1982). In addition, similar structures such as offshore wind farm monopiles have been readily colonised by encrusting fauna and flora following their installation in the North Sea (Meißner and Sordyl, 2006). It is thus highly likely that the introduction of the additional seabed deposits by the proposed operations will encourage colonisation similar to that already existing on other structures in the area. As the extent of the rock is small, it is not anticipated that the permanent rock placement results in changes to local biota.

The area of proposed operations does not overlap any designated sites with benthic features. The closest designated site with benthic features is the Sullom Voe SAC (located 542 m from the site), designated for Annex I habitats 'Large shallow inlets and bays', 'Coastal lagoons' and 'Reefs'. Due to the spatial separation, the works will only impact the immediate surroundings of the pipeline and not the SAC due to lack of direct impacts on the seabed and significant sedimentation as a result of the activities. Other designated sites with benthic features are located further away from the sites and similarly to the Sullom Voe SAC, no connectivity to these sites is expected. It is therefore not expected that the activities will lead to any likely significant effects on the Sullom Voe SAC or other designated sites for their benthic features.

Disturbance to the seabed during span remediation operations will be minimal and mitigated due to the careful deposition of rock, short-lived duration of operations (i.e., 7 days). While there may be mortality of some individuals, the impact of the proposed operations on population levels across the North Sea is unlikely to be significant given the area of available seabed.

EnQuest aims to minimise the impact to the seabed from the pipeline operations by minimising the amount of loose rock or rock filter bags placed.

2.4 Cetaceans

Of the 28 species of cetacean recorded in UK waters, 23 are known to be present in the wider Shetland area (Reid *et al*., 2003; BEIS, 2022). The Faroe-Shetland Channel and adjacent waters are regarded as important areas for cetaceans in a national and international context.

The waters to the north and west of Scotland and within the Faroe-Shetland Channel support a rich diversity and density of cetaceans. The regularly sighted whales in the wider region include blue whale *Balaenoptera musculus*, fin whale *Balaenoptera physalus*, sei whale *Balanoptera borealis*, minke whale *Balanoptera acutorostrata*, humpback whale *Megaptera novaeangliae*, sperm whale *Physeter macrocephalus*, northern bottlenose whale *Hyperoodon ampullatus*, long-finned pilot whale *Globicephala melas* and killer whale *Orcinus orca*. In addition, ten species of cetacean are known to occur regularly in waters to the west of Shetland throughout the year including harbour porpoise *Phocoena phocoena*, white-beaked dolphin *Lagenorhynchus albirostris*, Atlantic white-sided dolphin *Lagenorhynchus acutus*, Risso's dolphin *Grampus griseus*, bottlenose dolphin *Tursiops truncatus*, short-beaked common dolphin *Delphinus delphis*, killer whale, long-finned pilot whale, sperm whale and minke whale. Harbour porpoise, white-beaked dolphin and Atlantic white-sided dolphin are widespread throughout the area while Risso's dolphin, long-finned pilot whales, sperm whales, fin and beaked whales have been observed primarily in deeper waters. Off the coast of Shetland and Orkney, minke whales, Risso's dolphins and killer whales are widely distributed during the summer months (BEIS, 2022).

Atlantic white-sided dolphin, bottlenose dolphin, common dolphin, harbour porpoise, killer whale, minke whale, Risso's dolphin and white-beaked dolphin have been recorded in the vicinity of the proposed operations (Reid *et al*., 2003; NMPi, 2026) (see Table 2-3). Harbour porpoise were recorded in May, July, and August with low to moderate densities. Killer whales were recorded in August in moderate densities. Minke whales were recorded in July in moderate densities. Atlantic white-sided dolphins, bottlenose dolphins and Risso's dolphins were recorded in July in low densities. White-beaked dolphins were recorded from June to August, showing low to moderate presence. Common dolphins were recorded in August only in low densities. All cetacean species recorded in the area are listed as European Protected Species (EPS) under Annex IV of the Habitats Directive and all species are classified as PMFs (NatureScot, 2020a). Harbour porpoise are also listed under Annex II of the Habitats Directive.

Table 2-3 Seasonal occurrence of the most frequently sighted cetaceans in the vicinity of the operations at PL10 (Reid et al., 2003; NMPi, 2026)

Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Atlantic white-sided dolphin							3					
Bottlenose dolphin							3					
Common dolphin								3				
Harbour porpoise					3		2	3				
Killer whale								2				
Minke whale							2					
Risso's dolphin							3					
White-beaked dolphin						3	2	2				
Key: 1 = High Density, 2 = Moderate Density, 3 = Low Density, Blank = No Data												

The Small Cetaceans in European Atlantic waters and the North Sea (SCANS) IV report identified the density of cetaceans per km^2 as part of a survey in summer 2016. The SCANS-IV survey aimed to provide a large-scale estimate of cetacean abundance in European waters. The proposed operations are located in SCANS-IV Block NS-E (Gilles *et al.,* 2023).

Within SCANS Block NS-E harbour porpoise, minke whale, Risso's dolphin, white-beaked dolphin, and Atlantic white-sided dolphin were recorded. Their respective densities were 0.5156 animals/km², 0.0121 animals/km², 0.0702 animals/km², 0.1775 animals/km², and 0.0146 animals/km² (Gilles *et al.,* 2023). Whilst common dolphin and long-finned pilot whale were not recorded in the SCANS IV Survey, their presence cannot be discounted due to previous sightings in the area (Reid *et al.,* 2003). On the other hand, Atlantic white-sided dolphin were recorded in the area during the SCANS IV survey, however were not initially noted in the area according to Reid *et al.* (2003).

It should be noted that killer whale were not studied as part the SCANS IV survey due to a low number of sightings across the UKCS (Gilles *et al.* 2023). Therefore, their presence in the area cannot be discounted based on previous sightings (Reid *et al.* 2003). Moreover, Deecke *et al.* (2011) also report that killer whales have been commonly spotted in the waters around Shetland since the 1970s, therefore, they may be present in the project area.

2.4.1 Potential Sound Disturbance

In recent years there has been increasing concern about the effects of underwater sound on marine mammals. Marine mammals recorded in the area which are regular visitors include Atlantic white-sided dolphin, bottlenose dolphin, common dolphin, harbour porpoise, killer whale, minke whale, Risso's dolphin and white-beaked dolphin.

The potential source of acoustic disturbance is from the Dynamic Positioning (DP) of the MSV that will be used to conduct the operations. The sound sources of the thrusters from such a vessel have their peak levels in the low-frequency end of the spectrum and therefore smaller cetaceans, such as the harbour porpoise, Atlantic white-sided dolphin and white-beaked dolphin may be less affected than the baleen whales, such as the minke whale, which is more sensitive to lower frequencies.

The main potential impact would be for the thruster sounds to mask the hearing of the baleen whales. The potential for masking at higher frequencies (1 to 25 kHz) exists when the vessel is in close proximity to the particular animal. In these close proximity circumstances other marine mammals may also experience masking from vessel sound (for example, toothed cetaceans) (Lusseau *et al.,* 2009). There is little known about the potential of DP thrusters to cause auditory impairment or physical damage to cetaceans. Moderate levels of

underwater sound can induce short-term reductions in hearing sensitivity in marine mammals (temporary threshold shifts (TTS); Kastak *et al.,* 2005), whilst it is possible that higher levels may result in more permanent damage (Finneran *et al.,* 2005).

The MSV will be operating in an open offshore environment and as such there is no potential for marine mammals to become trapped in a high-sound environment. Additionally, the vessel will be stationary while undertaking the operations allowing time for any marine mammals in the vicinity to become accustomed to the vessel (or move away from it) as it approaches thus avoiding any startle responses. Continuous or prolonged sounds are less problematic for animals than loud, intermittent sounds as individuals will have the opportunity for avoidance.

Furthermore, the sound produced from the placement from the rocks themselves will be negligible due to the close proximity to the seabed.

The Joint Nature Conservation Committee (JNCC) (2010) states that "it is most unlikely that a passing vessel would cause more than trivial disturbance" and that it is only "the repeated or chronic exposure to vessel sound that could cause disturbance in the terms of the Deliberate Disturbance of Marine European Protected Species Regulations". It also proposes that a score of five or more on the Southall *et al*. (2019) behavioural responses scale would constitute a disturbance offence. Considering the limited spatial extent of observed changes in behaviour and the absence of any apparent changes in other cases, the increase in sound as a result of the vessel that will be on site during the proposed activities means that it is unlikely to result in any significant disturbance. As such, significant, negative, residual effects of sound resulting from the increase in sound due to the presence of the vessels during the proposed operations are unlikely.

No designated sites with cetacean qualifying feature are present within 40 km of the location of works, and as such the remedial works have no connectivity to any designated sites.

As any disturbance of cetaceans is unlikely due to vessel presence, no EPS Licence for cetacean disturbance is required.

2.5 Seals

Two species of seals live and breed in the UK, namely the grey seal *Halichoerus grypus* and the harbour seal *Phoca vitulina* (Jones *et al*., 2015; BEIS, 2022). Both grey and harbour seals are listed under Annex II of the EU Habitats Directive and are PMFs (NatureScot, 2020a; BEIS, 2022). Approximately 34% of the world's grey seals breed in the UK (of these, 70% breed at colonies in Scotland with the main concentrations in the Western Isles and in Orkney). Approximately 30% of the world's harbour seals are found in the UK; however, this proportion has declined from approximately 40% in 2002. Harbour seals are widespread around the west coast of Scotland and throughout the Hebrides and Northern Isles (Special Committee on Seals, 2024; BEIS, 2022). On the east coast, the distribution is more restricted with concentrations in the major estuaries, including the Moray Firth in Scotland.

Grey and harbour seals feed in inshore and offshore waters depending on the distribution of their prey, which changes both seasonally and yearly. Both species tend to be concentrated close to shore, particularly during the pupping and moulting season. The pupping season for harbour seals occurs between mid-June to July with moulting in August. For grey seals, breeding occurs September through to December with moulting typically occurring in January but may continue until early April. Seal haul-out sites are used by both seal species for resting, moulting, and breeding. There are six designated seal haul-out sites within 10 km of the proposed operations that support both grey seals and harbour seals. The closest haul out site is approximately 8 km north of proposed operations. These sites offer seals sheltered flat areas that enable seals to rest and protect themselves from predators. Furthermore, the Yell Sound Coast SAC designated for harbour seal is located within 1 km of the proposed operations.

Some harbour seals forage more than 100 km from their nearest haul-out sites while others remain very close inshore within only a few kilometres of haul-out sites (Special Committee on Seals, 2024). Foraging movements

of grey seals can involve greater distances compared to harbour seals. Grey seals may range widely to forage and frequently travel over 100 km between haul-out sites (Special Committee on Seals, 2024).

Given the density of haul-out sites and proximity to the Yell Sound SAC, seal density is expected to be high in the vicinity of the proposed operations. This is confirmed by the grey and harbour seal density maps published by the Carter *et al.* (2022) which are provided in the NMPi (2026). The maps report the presence of grey and harbour seals in the in the area of proposed operations, as between >0.001% and ≤0.05% and >0.01% and ≤0.025% of the mean percentage at sea population per 25 km respectively.

Harbour seals are a designated feature of the Yell Sound SAC, which is located <1 km (542 m) from the proposed operations. Vessels presence from the single MSV and underwater noise form the operations could lead to disturbance of the seals. The noise from vessel presence and rock placement is however short-lived and the vessels use dynamic positioning, limiting the underwater noise generated. Given the proposed operations are occurring outwith the harbour seal pupping and moulting season (typically June - August) when seals are most vulnerable, any disturbance to the seals at the Yell Sound SAC during the short duration of the operations is anticipated to be incidental. Furthermore, the MSV will not resulting in an increase in vessel traffic compared to the baseline traffic. No likely significant effect on the Yell Sound SAC is therefore expected.

As the closest seal haul-out site is located 8 km away from the proposed operations and the seal species are only protected when hauled out of the water, the proposed remedial works are not capable of disturbing hauled out seals. No impacts on seal haul-out sites are therefore expected. During pre-application correspondence, NatureScot advised that the proposed remedial works are unlikely to have a significant impact on seal haul-out sites due to very short duration and limited extent.

2.6 Otters

The European otter is a semi-aquatic mammal, which occurs in a wider range of ecological conditions, including inland freshwater and coastal areas. Populations in coastal areas utilise shallow, inshore marine areas for feeding but also require fresh water for bathing. Historically, European otters occurred over most of the UK, however populations declined significantly in the 1960's and 1970's due to persecution, habitat loss and, more recently, the impact of toxic organochlorine insecticides. At present, the majority of the otter population in the UK occurs in Scotland, with a significant proportion of this number being found in the north and west. The Scottish population has an unusually high proportion (perhaps 50% or more) of coastal-dwelling individuals, which feed almost exclusively in the sea (NatureScot, 2020a).

The European otter is listed as EPS under Annex IV of the Habitats Directive and are listed as PMFs (NatureScot, 2020a). The European otter is also currently protected under Annex II of the EU Habitats Directive.

As part of an ongoing monitoring programme, EnQuest work with CKOS Solutions to undertake annual otter surveys of the Yell Sound SAC. The 2024 survey revealed a decrease in otter density in 2024 (60 individuals recorded) compared to the 2023 survey (75 individuals recorded). However, the report suggests that annual fluctuations are likely to result from short-term factors such as food availability, cubs being born in the survey area and time taken to move into the area. Overall, otter numbers recorded in the 2024 survey are similar to those observed between 2009 and 2023, slightly below the 15-year average of 65 individuals. (CKOS Solutions, 2024).

Otters are a qualifying feature of the Yell Sound Coast SAC, located approximately <1 km (542 m) southwest from the proposed operations. The site supports one of the densest otter populations in Europe, estimated at approximately 192 individuals, or approximately 25% of Shetland's population (JNCC, 2025c).

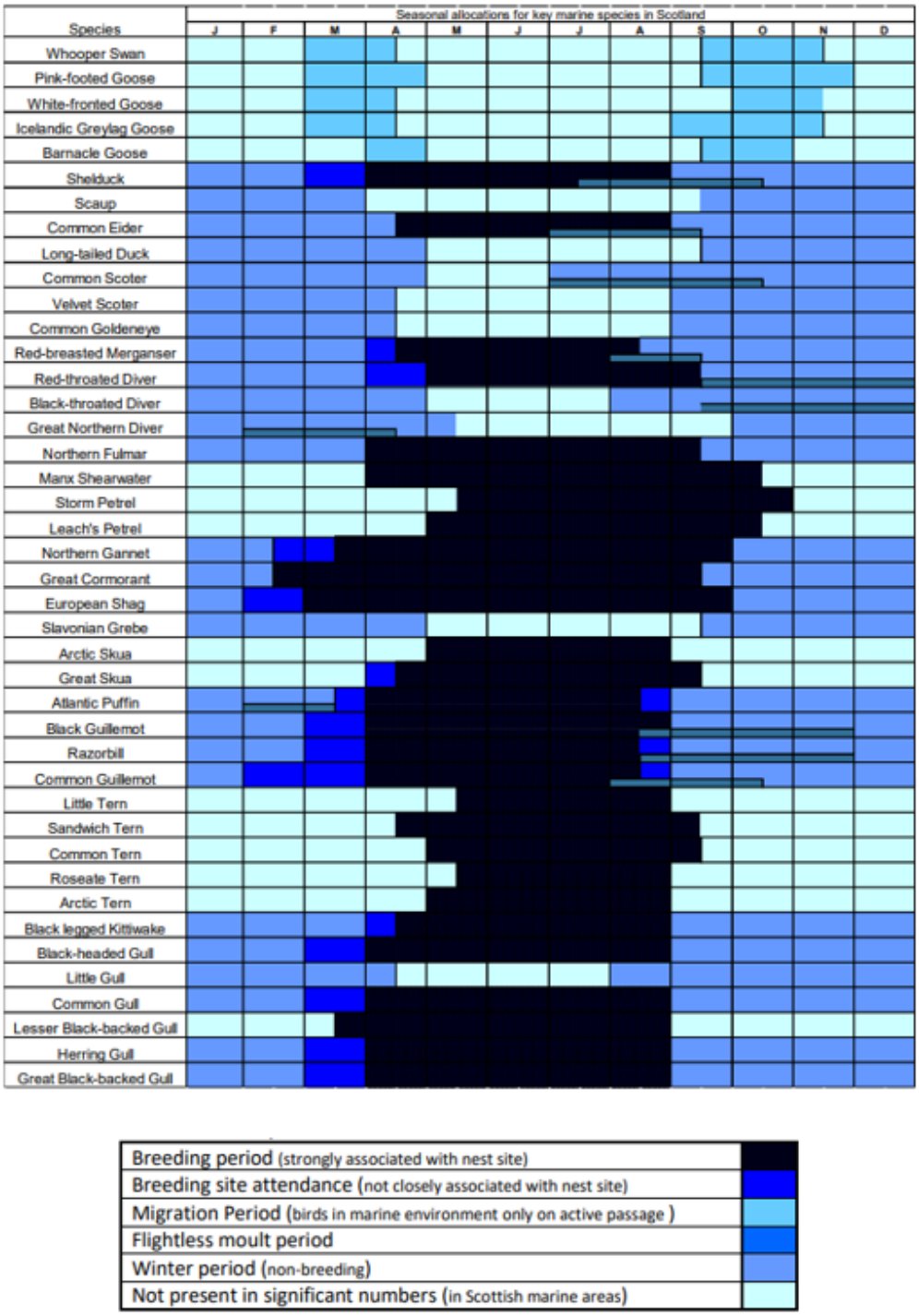
As otters primarily occupy coastal areas, the closest coastline being Whether Holm, approximately 400 m east, and the proposed operations take place in the subtidal area away from the coast, it is unlikely that the vessel presence will disturb otters. Due to the short duration of operations and the works being marine-based, the works are unlikely to have a significant effect on the Yell Sound Coast SAC or cause disturbance to otters. No EPS Licence for otter disturbance is therefore required.

2.7 Seabirds

JNCC prepares the latest analysed trends in abundance, productivity, demographic parameters and diet of breeding seabirds, from the Seabird Monitoring Programme (JNCC, 2024). This data provides at-a-glance UK population trends as a percentage of change in breeding numbers from complete censuses. From the years 2000 – 2023, the following population trends for species known to use the area have been recorded: northern fulmar (-38%), black-legged kittiwake (-32%) and common guillemot (+2%) (JNCC, 2024). Breeding seabird numbers of some species have shown a long-term decline, most probably as a result of a shortage of key prey species such as sandeels associated with changes in oceanographic conditions (Baxter et al., 2011; BEIS, 2022). In addition, climate change is a major driver contributing to the poor status of many of the seabird species, as it builds on underlying pressures such as by-catch, collision, predation by terrestrial non-indigenous species such as rats and mink, habitat loss and disturbance from human activities (OSPAR Commission, 2023). Certain marine bird groups are particularly vulnerable, including top predator species that are affected by low prey availability and shorebirds that are affected by climate change-driven habitat changes.

According to NatureScot (2020b), seabird breeding season typically spans from April through to September for the majority of species in the Scottish Marine Area (Figure 2-2). Given that the proposed operations may take place in September at the earliest, there may be some overlap with the end of the breeding season for the following species: red-throated diver, northern fulmar, Manx shearwater, European storm petrel, Leach's petrel, northern gannet, great cormorant *Phalacrocorax carbo*, European shag, great skua, sandwich tern *Thalasseus sandvicensis*, and common tern *Sterna hirundo.* It should be noted that this list is not specific to the Shetland area but the wider Scottish Marine Environment. However, it has been included here due to the spatial resolution of available data and potential to disrupt breeding seabirds.

Figure 2-2 Annual seabird breeding seasons in Scotland (NatureScot, 2020b)



The activities are planned to start in mid-June at the earliest and therefore may coincide with the breeding season when seabird numbers are expected to be highest (NatureScot, 2020b); therefore, operations may overlap with the breeding seasons for shelduck, common eider, red-breasted merganser, red-throated diver, northern fulmar, Manx shearwater, European storm petrel, Leach's petrel, northern gannet, great cormorant, European shag, Arctic skua, great skua, Atlantic puffin, black guillemot, razorbill, common guillemot, little tern,

sandwich tern, ~~and~~ common tern, roseate tern, Arctic tern, black legged kittiwake, black-headed gull, common gull, lesser black-backed gull, herring gull and great black-backed gull.

According to the breeding density maps provided in Kober *et al*. (2010), the following species have been recorded within Shetland: northern fulmar, Manx shearwater, European storm petrel, northern gannet, great cormorant, European shag, Arctic skua, great skua, black legged kittiwake, great black-backed gull, common gull, lesser black-backed gull, herring gull, common tern, Arctic tern, common guillemot, razorbill and Atlantic puffin. Kober *et al*. (2010) did not study shelduck, common eider, red-breasted merganser and red-throated diver, therefore, cannot be concluded that these birds may be breed near proposed operations. However, black guillemot, little tern, sandwich tern, roseate tern and black-headed gull were not observed by Kober *et al*. (2010) to breed on Shetland.

The proposed operations overlap with the East Mainland Coast SPA, designated for great northern divers that will likely not be present in significant numbers, Slavonian grebe whose winter period starts at the end of September, and red-throated divers whose breeding season ends in September but peaks early summer.

The proposed works have the potential to disturb rafting and breeding seabirds due to vessel presence, including noise, visual disturbance and vessel lighting. The remedial operations are however short-lived (7 days) and the vessel used will be slow-moving and able to avoid rafting birds. The works occur in an area with existing vessel presence, so any additional movements by a single vessel are unlikely to present a change to the baseline. Furthermore, the works are located a minimum of 400 m from the coast and any breeding or nesting birds, and the lights used on board will be minimised. The potential for bird disturbance resulting from the presence of a single vessel is therefore low, and not anticipated to result in a likely significant effect on the East Mainland Coast SPA.

The operations do have the potential to affect seabirds at sea, out-with any SPA boundary, due to the mobile nature of the species. However, the proposed rock installation activities are considered extremely unlikely to result in any adverse effects on the sensitive ornithological species in the area due to the temporary and relatively short-term nature of proposed installation activities (7 days). Therefore, activities are unlikely to significantly impact populations of seabirds.

3 Other Sea Users and Navigation Safety

Other vessels regularly use the location of works for navigation, and some fishing takes place in the vicinity of the works, so impacts on other sea users from the operation have been considered.

PL10 is located in International Council for the Exploration of the Seas (ICES) rectangle 49E8. ICES rectangle 49E8 is predominantly targeted for demersal species, which accounted for 57% ~~%~~ of live weight and 65% of value, and shellfish species, which accounted for 27% ~~37%~~ of live weight and 26% of value in 2024 (Marine Directorate, 2025). Trawling gear is therefore being used in the area (Marine Directorate, 2025 ~~2024~~). To put landings into context, a total of 594,481 tonnes with a value of £882,253,660 was landed in the UK in 2024 (Marine Directorate, 2025). The average tonnes and value landed per ICES rectangle in 2024, was 3,340 tonnes and £4,956,481 , respectively. Therefore, the ICES rectangle 49E8 catch was above average for landings and value when compared to overall UKCS (Marine Directorate, 2025). The overall effort in the UKCS in 2024 for ICES rectangle 49E8 was 1,356 days, which represented 1.47% of total fishing effort across the UKCS in 2024. This is above average in comparison to other areas of the North Sea. However, as the inshore is unlikely to be the main fishing grounds within ICES rectangle 49E8 fisheries are not expected to be impacted significantly from the proposed operations.

The presence of the MSV is not expected to result in any significant effect on shipping and navigation, other than the fact that the vessel will be slow-moving. The proposed area of operations overlaps with some shipping routes (Figure 3-1) (EMODnet, 2025). These routes are mainly taken by fishing vessels and port service craft vessels travelling between aquaculture sites. There is increased vessel density from the SVT and the small terminal to the east of the terminal, however, the proposed operation is in an area where vessel density is 500

– 1,000 number of tracks annually (Figure 3-2). No impacts on navigation safety from the activity are anticipated.

The MSV will be used to carry out the proposed operations will exclude small areas of the sea from use by vessels for up to 7 days. Furthermore, the vessel itself, may present a collision risk with other vessels using the area. The deposit of remedial rock to stabilise free span on the seabed will exclude vessels from these areas for a short duration while the works are ongoing, and the rock will result in a permanent feature on the seabed and potential snagging risk for any trawler fishing gear in the area. The rock will be placed partly under the pipe, and the berm will have a maximum height of 1.5 m, with the overall extent of each rock placement being small, reducing the possible impact on other sea users.

Figure 3-1 Vessel traffic in the vicinity of proposed operations

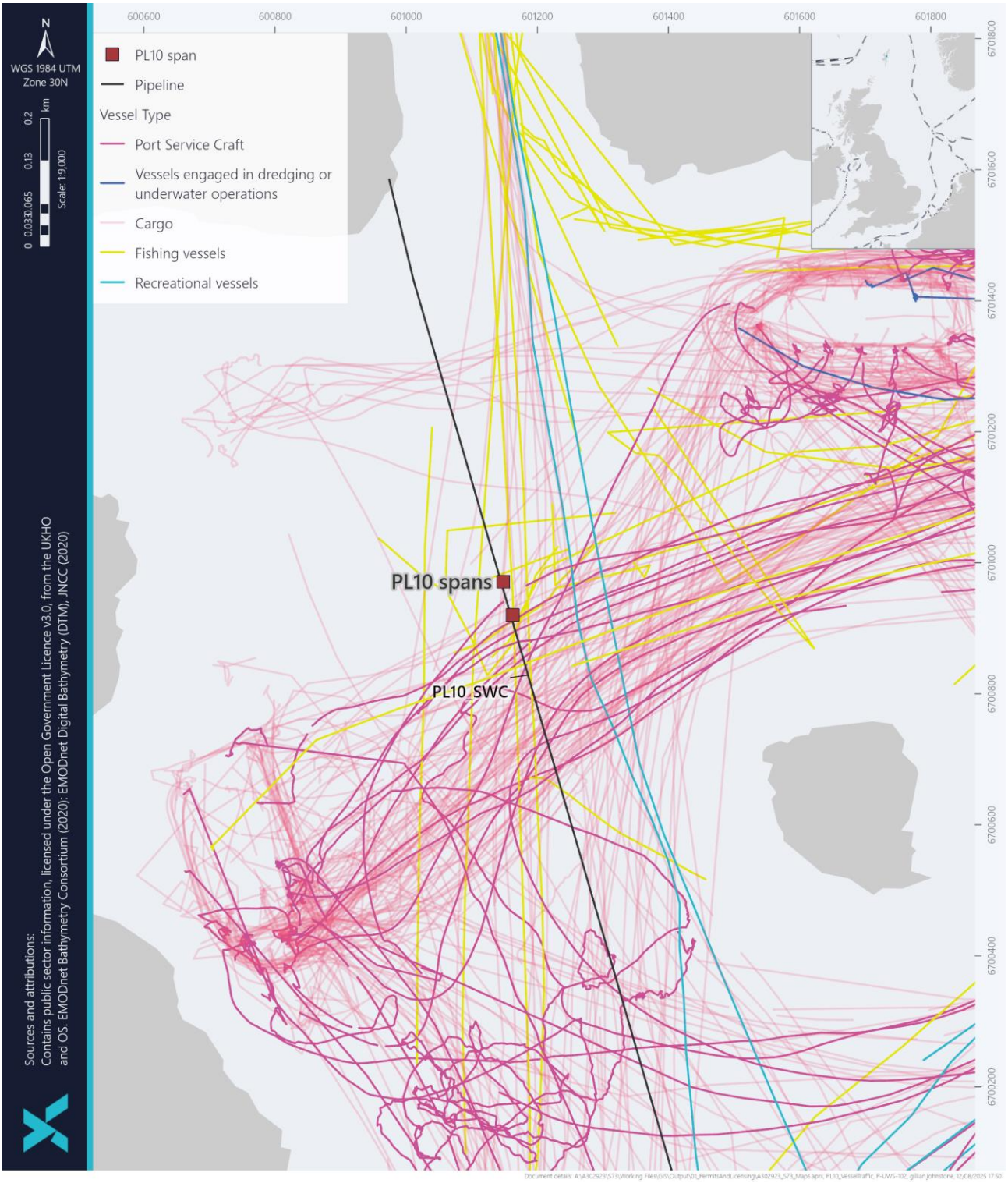
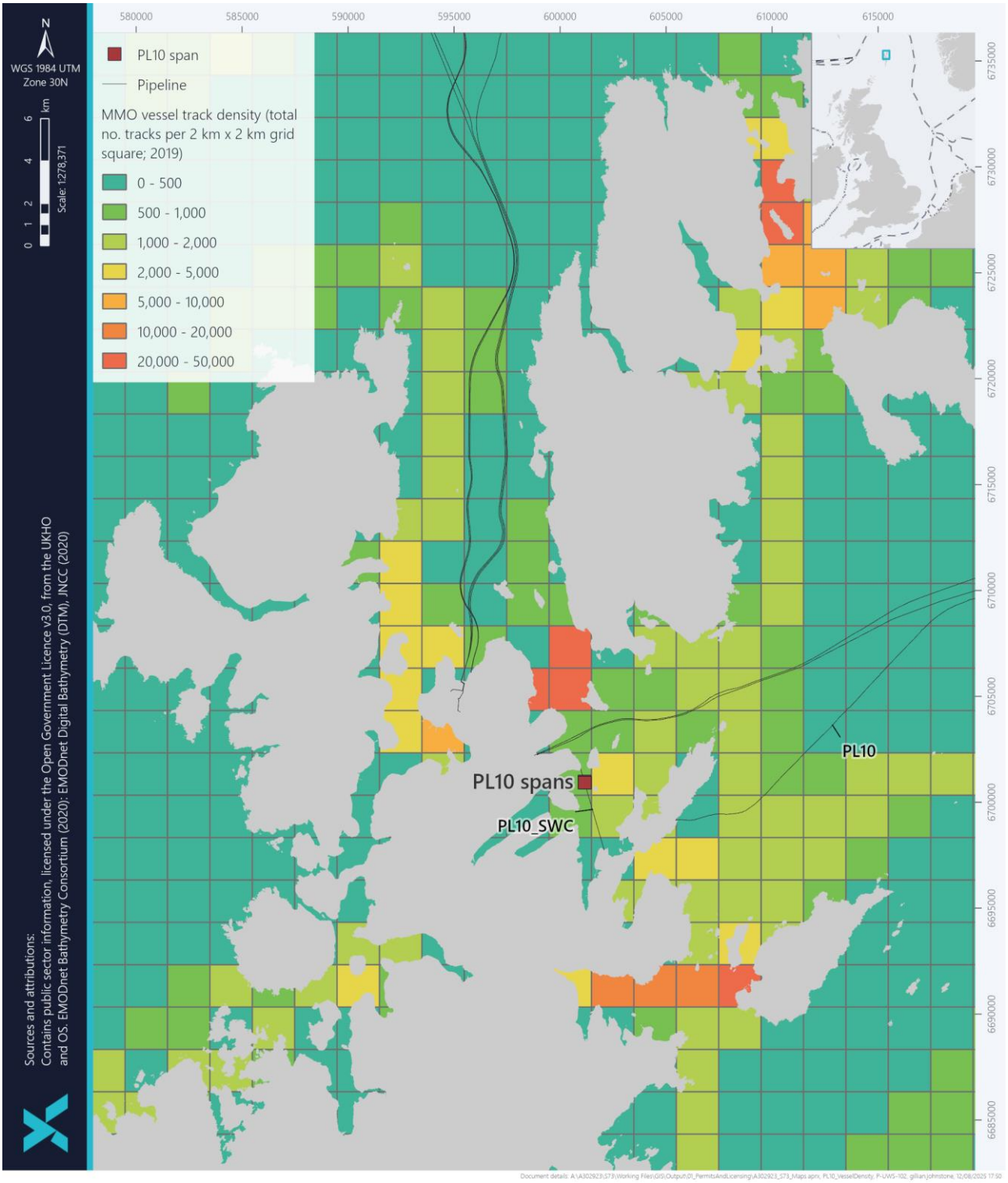


Figure 3-2 Vessel Density in the Vicinity of Proposed Operations



Commercial fisheries and oil and gas extraction are both spatially extensive industries in the North Sea, and inevitably there is physical interaction where the two activities coincide. Regular contact between fishing gear and oil and gas infrastructure may risk structures integrity and could lead to gear snagging and entanglement

risk for fishers. The location of works however overlaps the existing pipeline location and is already appropriately charted.

EnQuest will undertake measures to ensure that collision risk and interaction with fisheries and aquaculture operators are reduced as reasonably practicable. All information relevant to operations will be submitted to the Kingfisher database to ensure the presence and purpose of the MSV is known and it will abide by guidance with regards to lighting, to mitigate against any potential collision hazards. Navigational warning as instructed by the Maritime and Coastguard Agency will also be provided.

With this is mind, the loss of access to other sea users including fishermen and the sufficient mitigation measures in place, the proposed operations are therefore not considered to have a significant effect.

3.1 Aquaculture

There are multiple active aquaculture sites located around the coast of Shetland (NMPi, 2026). There are 14 sites within 5 km of proposed operations (Table 3-1). The nearest active aquaculture site is Bight of Foraness (ID FS0292) from Scottish Sea Farms Ltd for Atlantic Salmon, located <1 km west of the free span. Due to the close proximity of some of the aquaculture sites, some interaction may occur. These include noise disruption startling the fish and sediment resuspension affecting aquaculture systems (e.g. water quality) and fish health. However, due to the small extent and short period of operations, and hard seabed type, impacts from possible interaction and resuspension will be minimal. Furthermore, as the rock placement will be close to the seabed, noise disturbance will be minimal.

EnQuest acknowledge the proximity to the fish farms and are in contact with the farm operators (Section 4.1.2).

Table 3-1 Aquaculture Sites in the Vicinity of Operations

Site	ID	Operator	Species	Distance
Bight of Foraness	FS0292	Scottish Sea Farms Ltd	Atlantic Salmon	<1 km west
Linga (Setterness)	FS1027	Scottish Sea Farms Ltd	Atlantic Salmon	<1 km northeast
Swinster Voe	SS0924	Hunter Salmon (Shellfish)	Common Mussel	<1 km northwest
Poseidon	FS0408	Scottish Sea Farms Ltd	Atlantic Salmon	2 km southeast
Setterness North (Bomio)	FS1076	Scottish Sea Farms Ltd	Atlantic Salmon	2 km southeast
Collafirth 3	FS0999	Scottish Sea Farms Ltd	Atlantic Salmon	2 km southwest
Swinning Voe 3	FS0903	Scottish Sea Farms Ltd	Atlantic Salmon	2 km south
West Taing	SS0800	Hunter Salmon (Shelllfish)	Common Mussel	3 km southwest
Cul Ness	SS0691	Seafield Mussels Ltd	Common Mussel	3 km southeast
Scarva Aye 2	SS0668	Hunter Salmon (Shellfish)	Common Mussel	4 km southwest
South Side, Dales Voe	SS0707	Hunter Salmon (Shellfish)	Common Mussel	4 km southwest
Inner Collafirth, Delting	SS0862	Blueshell Mussels Ltd	Common Mussel	4 km southwest
North West of Cul Houb	SS0888	Blueshell Mussels Ltd	Common Mussel	4 km southeast
Scarva Aye 1	SS0667	Hunter Salmon (Shellfish)	Common Mussel	5 km southwest

3.2 Atmospheric Emissions

Atmospheric emissions will occur from the generation of power onboard the MSV during proposed operations. The main combustion product resulting from power generation is carbon dioxide (CO_2) with small quantities of methane (CH_4), volatile organic products (VOCs), nitrous oxides (NOx), nitrogen dioxide (N_2O), carbon monoxide (CO) and very small quantities of sulphur dioxide (SO_2).

Table 3-3 summaries the predicted atmospheric emissions associated with the proposed operations (including the Global Warming Potential (GWP)), based on the fuel consumption and time on site as detailed in Table 3-2.

Table 3-2 Expected Vessel Activity During Proposed Operation

Vessel Type	Days on Site	Fuel Use (tonnes/ day)	Total Fuel Use
MSV	7*	5[1]	35
Note: The works are expected to be completed within 2 days, however, fuel use and the resulting emissions have been calculated based on operations taking 7 days in case of unforeseen operational or weather delays.			

Table 3-3 Atmospheric Emissions (OEUK, 2024; IPCC, 2014) Emitted During the Proposed Operation

Emission factor	Emissions (tonnes)						
	CO_2	CO	NO_x	N_2O	SO_2	CH_4	VOC
	3.17	0.0157	0.059	0.00022	0.002	0.00018	0.0024
MSV	110.95	0.55	2.07	0.01	0.07	0.01	0.08
GWP	1	1.6	0	273	0	29.8	5.6
CO_2e Emissions	110.95	0.88	0.00	2.65	0.00	0.28	0.45
Total CO_2e Emissions	115.21						
Percentage of UK total CO_2e	0.001						

The proposed operations described in this application will generate approximately 111 tonnes of CO_2 and give rise to a GWP of 115.2 tonnes of Carbon Dioxide equivalent (CO_2e) when other greenhouse gases are included.

An exact figure for offshore emissions in UK waters does not exist. Part of this arises from shipping and it is possible to estimate this contribution by looking at refuelling activity at shipping fuel bunkers within UK ports and harbours (DESNZ, 2025), in which estimates of shipping emissions are included as a memo item in greenhouse gas inventories. In addition to this, the oil and gas industry reports atmospheric emissions annually to Oil and Gas UK (OEUK, 2025). By summing these totals, it is therefore possible to assess each operation in relation to the total UK Offshore emissions. The total Oil and Gas UK E&P (Exploration and Production) figure for 2024 is 12,400,000 tonnes of CO_2 (OEUK, 2025) and the 2024 UK Ship Emissions (DESNZ, 2025) figure for shipping is 6,200,000 tonnes of CO_2, giving a total of 18,600,000 tonnes of CO_2. The proposed operations will therefore contribute to 0.001% of the total atmospheric emissions associated with UK offshore activities in a year when other greenhouse gases are also included.

Localised impacts may include elevated levels of atmospheric emissions in the immediate area. The potential for cumulative effects associated with atmospheric emissions in general includes contributions to global warming (greenhouse gases), acidification (acid rain) and local air pollution. However, due to the temporary nature of proposed operations, it is considered that these elevated concentrations will be short-lived and will

[1] Based on an average fuel burn per day including service speed, DP station keeping, and standby operations.

hardly be detectable beyond a short distance from the proposed operations due to the dispersive nature of the offshore environment. Atmospheric emissions are expected to be rapidly dispersed in the open offshore environment in the direction of the prevailing wind.

The North Sea Transition Authority (NSTA) (formerly OGA) unveiled strategies (6th May 2020) to support targets in reaching net zero with the aim to support oil and gas industry in reducing greenhouse gas emissions and to encourage progress on carbon capture and storage and hydrogen projects. The NSTA believes that maximising economic recovery of oil and gas need not be in conflict with the transition to net zero and that the industry has the skills, technology and capital to help unlock solutions required to help the UK achieve the net zero target (NSTA, 2022). In addition to this, it is the aim of the British Government to reach a target of reducing greenhouse gas emission to net zero by 2050. EnQuest acknowledges these steps made by the NSTA and the government and are currently working on delivering to these measures. While the duration and extent of the operations is minimised, the operations are deemed as necessary for pipeline integrity and environmental safeguarding.

3.3 Scotland's NMP

Scotland's NMP covers the management of both Scottish inshore region (out to 12 nautical miles) and offshore region (12 to 200 nautical miles). The aim of the NMP is to help ensure the sustainable development of the marine area through informing and guiding regulations, management, use and protection of the Marine Plan Areas. The proposed operations at PL10 as described have been assessed against the Marine Plan Objectives and Policies, specifically GEN 1, 4, 5, 9, 12, 13, 14 and 21 (Table 3-4). The proposed operations have also been assessed against the Oil and Gas Sector objectives and policies 1,3 and 6 (Table 3-5).

Table 3-4 NMP Policies Relevant to the Proposed Operations

Policy	Title	Details
GEN-1	General planning and principle	Development and use of the marine area should be consistent with the Marine Plan, ensuring activities are undertaken in a sustainable manner that protects and enhances Scotland's natural and historic marine environment. EnQuest will ensure that any potential impacts associated with the pipeline operations will be kept to a minimum.
GEN-4	Co-existence	Where conflict over space or resource exists or arises, marine planning should encourage initiatives between sectors to resolve conflict and take account of agreements where this is applicable. EnQuest will ensure that any potential impacts on other sea users associated with the pipeline operations will be kept to a minimum by providing navigational warnings, and the pipeline being an already charted piece of infrastructure. This is further discussed in Section 3 and 3.1.
GEN-5	Climate change	Marine planners and decision makers should seek to facilitate a transition to a low carbon economy. They should consider ways to reduce emissions of carbon and other greenhouse gasses. EnQuest will ensure that any potential impacts associated with the pipeline operations will be kept to a minimum by minimising the vessel time and extent of remedial works. The works are necessary to prevent pipeline failure.

Policy	Title	Details
GEN-9	Natural heritage	Development and use of the marine environment must: • Comply with legal requirements for protected areas and protected species. • Not result in significant impact on the national status of Priority Marine Features. • Protect and, where appropriate, enhance the health of the marine area. EnQuest will ensure that any potential impacts to protected species and sites associated with the pipeline operations will be kept to a minimum, as discussed in Section 2.2 and 2.3.
GEN-12	Water quality and resource	Developments and activities should not result in a deterioration of the quality of waters to which the Water Framework Directive, Marine Strategy Framework Directive or other related Directives apply. EnQuest will ensure that any potential impacts to water quality associated with the pipeline operations will be kept to a minimum, as discussed in Section 2. Morphological impacts will also be limited as the works largely take place within the existing footprint of the pipeline.
GEN-13	Noise	Development and use in the marine environment should avoid significant adverse effects of man-made noise and vibration, especially on species sensitive to such effects. EnQuest will ensure that any potential impacts via underwater noise associated with the pipeline operations will be kept to a minimum, as discussed in Section 2.4.1.
GEN-14	Air quality	Development and use of the marine environment should not result in the deterioration of air quality and should not breach any statutory air quality limits. Some development and use may result in increased emissions to air, including particulate matter and gasses. Impacts on relevant statutory air quality limits must be taken into account and mitigation measures adopted, if necessary, to allow an activity to proceed within these limits. EnQuest will ensure that any potential impacts to air quality with the pipeline operations will be kept to a minimum, as discussed in Section 3.2.

Table 3-5 Oil and Gas Sector Policies and Objectives

Objective	Details
OIL & GAS: 1	The Scottish Government will work with the Department, NSTA and the industry to maximise and prolong oil and gas exploration and production whilst ensuring that the level of environmental risks associated with these activities are regulated. Activity should be carried out using the principles of Best Available Technology (BAT) and Best Environmental Practice (BEP). Consideration will be given to key environmental risks including the impacts of noise, oil and chemical contamination and habitat change. EnQuest will conduct the pipeline operations in line with the BAT and BEP principles, with the extent of works minimized as far as practicable while ensuring the asset integrity.

Objective	Details
OIL & GAS: 3	Supporting marine and coastal infrastructure for oil and gas developments, including for storage, should utilise the minimum space needed for activity and should take into account environmental and socio-economic constraints. This is further discussed in Section 3.
OIL & GAS: 6	Consenting and licensing authorities should be satisfied that adequate risk reduction measures are in place, the operation being a measure to prevent pipeline failure, and that operators should have sufficient emergency response and contingency strategies in place that are compatible with the National Contingency Plan and the Offshore Safety Directive.
Note: There are 6 Oil and Gas policies (listed under Chapter 9 of the NMP), all of which are taken into account when conducting activities.	

4 Consultation

4.1 Licence and Permit Requirements

4.1.1 Other Licence and Permit Requirements

With regards to other required permits/permissions, the following is noted:

- The proposed works are located within Shetland Marine Area, therefore a Works Licence from Shetland Islands Council (SIC) is being applied for.

Additionally, a separate Marine Licence application and Pipeline Application (PLA/1164) have been submitted to Marine Directorate and OPRED respectively regarding similar remediation works on a nearby pipeline, PL1762 located north of Sullom Voe, which may be completed in the same campaign.

4.1.2 Stakeholder Consultation

Consultation has been undertaken with SIC (including Shetland Marine Planning and Ports & Harbours Team), NSTA, Crown Estate Scotland, Scottish Fishers Association (SFA) and Shetland Shellfish Management Organisation (SSMO), NatureScot, and the local community councils regarding the proposal (Table 4-1). Scottish Sea Farms and Hunter Salmon (Shellfish) will be contacted to inform of the proposed works.

Since the original submission of this application, no further consultation with stakeholders has been undertaken.

An onshore Fisheries Liaison Officer will be engaged and support operations during planning, engineering and execution.

Table 4-1 Consultation Summary

Organisation	Consultation Details / Responses
SIC	Dialogue commenced 11th July. Formal consultation to begin 7th August for 28 days.
Shetland Marine Planning (Department of SIC)	To confirm if any permits are required to be submitted. Email sent 7th August. Response received 14th August.
Port & Harbours Team (Department of SIC)	Required notification to Mariners prior to operations. Email sent 16th July. Response 7th August.
NSTA	Deposit Consent Submitted 24th July via PWA Portal.
Crown Estate Scotland	*Under the terms of the Minute of Agreement for this pipeline, EnQuest Heather has the right to carry out the maintenance works you have described.*

Organisation	Consultation Details / Responses
NatureScot	Email correspondence feedback: *The works are of a very short duration and limited to small sections of an existing pipeline. At the Teams meeting the proximity of the pipeline to seal haul-outs was discussed. NatureScot checked the location of the works against designated seal haul-out sites, and advised that the works are sufficiently far away from the haul-out sites that disturbance should not be an issue, although vessel movements to/from the sites should be considered.* *On the information provided, there are no obvious concerns with the proposal from our perspective.*
SFA & SSMO	To inform about proposed works. Email sent 16th July. SSMO response 4th August.
Scottish Sea Farms Ltd	Email sent 7th August. Meeting held 22nd August to provide information of scope of work. No concerns noted at that time.
Hunter Salmon (Shellfish)	Email and discussion held 22nd August with follow-up meeting scheduled for 25th August.
Community Councils: Delting, North Mavine, Yell	Email sent 1st August.

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