Sullom Voe Terminal Construction Jetty

EIA Screening Request Report

Shetland Islands Council

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1. Introduction

Shetland Islands Council (SIC) propose to refurbish the Sullom Voe Terminal (SVT) Construction Jetty in Shetland in order to continue supporting the Terminal's marine operations. The construction jetty, originally built in the 1970s is comprised of a finger pier and ramp. It is in need of repair as the sheet piles which retain rubble infill are heavily corroded.

The facility is required for current operations at SVT and may also be required in the future for decommissioning and/or future energy projects located in or around Shetland. Refurbishment represents a relatively low environmental impact and cost-effective solution compared to demolition followed by new build or use of an alternative location. Refurbishment will minimise resource use and the duration of works compared to demolition and new build. The only feasible existing alternative facilities in Shetland which could be used are relatively distant, for example Lerwick Port Authority, situated approximately 30 miles south of SVT.

The proposed refurbishment will involve works below Mean High Water Springs (MHWS) and Mean Low Water Springs (MLWS). Works (see Section 3) will be limited to those required to refurbish the structure and will involve minimal change to the overall footprint and form of the structure.

This Screening Opinion Request seeks an opinion from the Marine Directorate as per Regulation 10(1) of the Marine Works (Environmental Impact Assessment (EIA)) (Amendment) Regulations 2017 ('EIA Regulations'); to determine whether an EIA will be required to support the Marine Licence application for the proposed works. The request adheres to the regulations governing land and marine works, specifically Regulation 8 of the Town and Country Planning (Scotland) (Environmental Impact Assessment) Regulations 2017 and The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (as amended).

It is understood that a Marine Licence and a SIC Works licence will be applied for to consent works. This document additionally seeks agreement from the Marine Directorate and SIC on the planned approach to permitting.

2. Location

2.1. Site Location, Context and Access

The Port of Sullom Voe is a major deep-water harbour owned and operated by Shetland Islands Council as Harbour Authority. The Harbour Authority provides vessel traffic, pilot and tug services from facilities at Sella Ness.

The Port has a construction, general cargo and heavy lift jetty (the "Construction Jetty"), which is located opposite the Sella Ness tug jetties. The Construction Jetty has a heavy lift pad, an adjoining RoRo ramp and an adjacent laydown area (Figure 2.1). Additionally the Construction Jetty provides critical pipework connections for backup fire water supply from the Sullom Voe Tug fleet.

Figure 2.1 Construction Jetty location and form.

The Construction Jetty was built in the mid-1970s for the unloading of construction materials, plant and equipment for the construction of SVT. It is currently used to facilitate ongoing terminal maintenance and for ad hoc loading/unloading operations and backup fire water supply.

To continue supporting the Terminal's marine operations and other uses, including third party and external, into the future, SIC have identified the need to upgrade and extend the life of the Construction Jetty.

Other than by sea, access to the Construction Jetty and laydown area is via a road running adjacent to Sullom Voe Oil Terminal. SIC are currently in discussion with the terminal operators and other stakeholders regarding the continuing operation of SVT, to 2057 and beyond.

A plan is provided in Appendix 1 to identify the area in which the works are proposed to be sited. There are no anticipated permitted developments within the proposed works area that could generate cumulative effects.

Any changes in the footprint area of the Construction Jetty will be limited to the area taken up by the encapsulating piles, which is estimated to represent an increase of no more than 10%. Taking into consideration the footprint of the jetty, the land-take effects are minimal. The proposed works are compatible with existing and approved land uses on site. The land use is therefore not considered sensitive in this respect.

The operation of the jetty is expected to have a positive, material impact on traffic and access as the only alternative facilities are relatively distant. Lerwick Port Authority for example I situated approximately 30miles south of SVT. If more distant facilities were used, an increase in fuel usage and Greenhouse gas (GHG) emissions would be expected due to the increased transit length by the oil and gas supply vessels and other jetty users.

3. The Proposed Works

3.1. Activity Description

3.1.1. Construction

The location of works is indicated in Figure 4.1. Additional drawings to support the description of works below are provided in Appendix 1 – Construction Jetty General Arrangements.

The first activity will be to partially demolish the upper surface of the existing Construction Jetty and fender downstands which are formed by a concrete slab.

It is proposed that the old jetty structure will be fully encapsulated using sheet piles, tubular steel piles or a similar solution, as presented in Figure 3.1. Vibro piling is expected to be utilised, potentially with pre drilling or trenching if the seabed conditions require this. Any void between the new and old structure will be filled with granular material.

Construction of the refurbished pier structure, includes retaining walls; anchor walls, ties, waling beams and all associated fittings; filling and compaction; reinforced concrete slab; fenders, bollards, ladders, lifebuoys, services and general quayside furniture.

The change in footprint area of the Construction Jetty will be limited to the area taken up by the encapsulating piles. This is estimated to represent a minimal increase to the order of a few percent of the current area which is necessary to maintain the jetty's safety and functionality. For present purposes the maximum footprint area increase is assumed to be 10%.

The onshore plant and machinery required for these works is expected to include:

- Long reach excavator with rock breaker
- Hydraulic excavator
- Telehandler
- Mobile elevated works platform
- Wheeled dumper
- Concrete wagon
- Concrete pump
- 20t HGV lorries
- Tipper lorries
- Delivery vehicles
- Mobile Crane
- Vibro and impact pile hammer
- Storage area, welfare and office facilities

Vessel(s) and marine equipment required:

- Spud leg dumb barge
- Small tug
- Small workboat
- Small safety boat
- Floating Pontoon

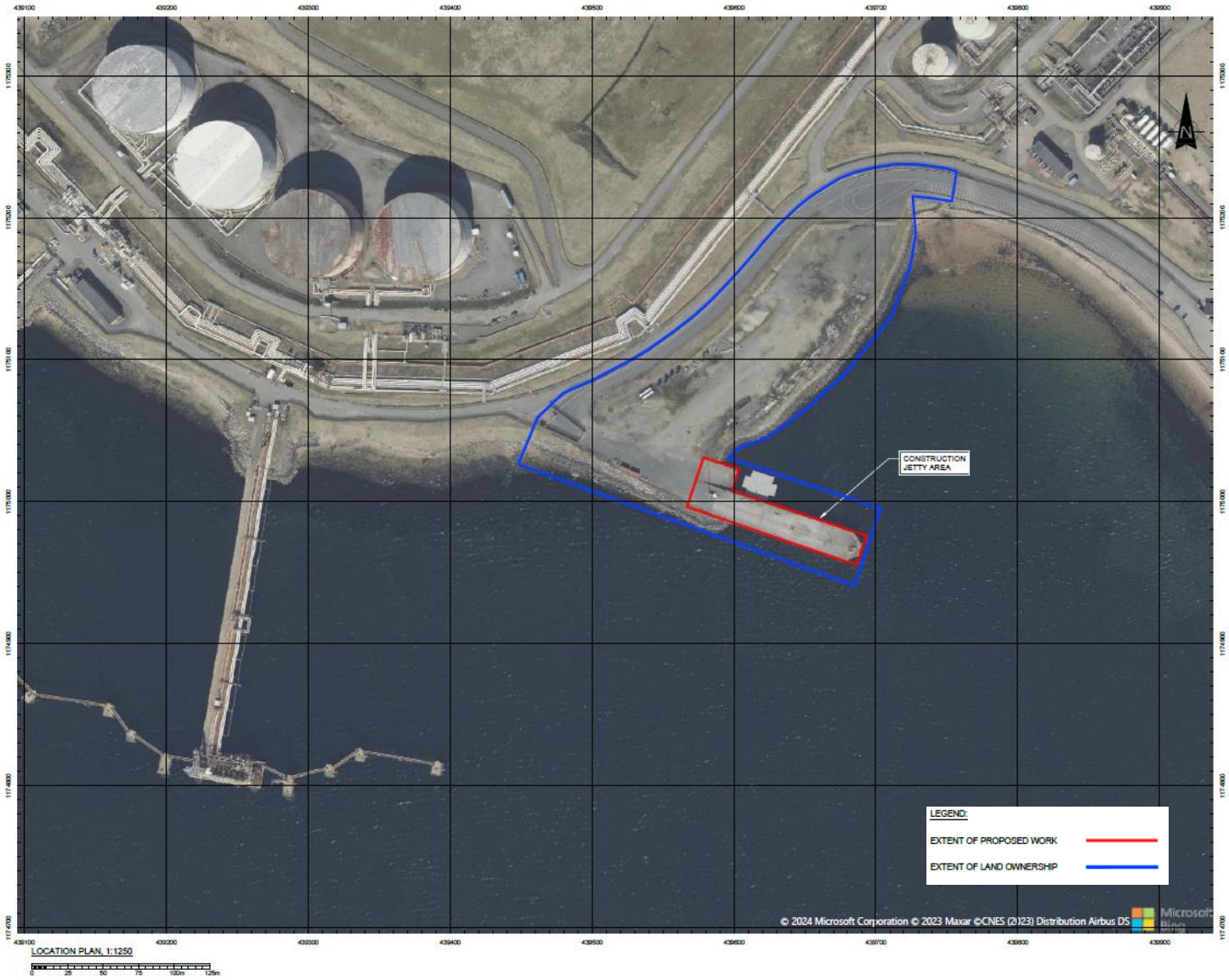

Figure 3.1 Construction Jetty Location Plan.

A Construction Environmental Management Plan (CEMP), inclusive of standard construction mitigation measures, best practices in construction management, and strict adherence to all relevant regulations, will be implemented to minimise environmental impacts. Considering the nature of the proposed development, it is not expected that there will be significant impacts on human health.

Throughout the construction phase, there is an expectation of minimal waste, and its handling will align with a CEMP and best practices. Any unsuitable or contaminated materials encountered during the construction process will be extracted and subject to offsite disposal in accordance with all regulatory requirements, including through obtaining appropriate Scottish Environment Protection Agency (SEPA) licenses if required. Materials suitable for reuse will be retained during construction. No dredging is planned but if this activity were required, an examination of options for dredged soft and hard material would be conducted through a Best Practicable Environmental Option (BPEO), with the likelihood of disposal at sea at an appropriately licenced site.

The risks to human health, including construction-related noise and air quality effects during construction, will be mitigated through measures detailed in a CEMP. It is expected that reduced transit time and fuel use compared to operation via alternative jetties which are more distant will cancel out activities associated with construction and potentially lead to an overall reduction in GHG emissions.

It is worth noting that the site is not close to a residential area or any Air Quality Management Area identified by SIC under the Local Air Quality Management regime. The site for the Proposed Works is also situated in a geographical area not prone to natural disasters. Therefore, it is believed that during the construction phase there will be no risks causing significant adverse effects on the environment due to major accidents or disasters.

3.1.2. Operation

The Proposed Works would extend the lifetime of the Construction Jetty which facilitates ongoing terminal maintenance and ad-hoc loading/unloading operations and backup firefighting capability. All associated works to enable this are considered in Section 3. The operation of the jetty itself is not deemed part of the Proposed Works, as there will be no alterations to the jetty's operations after the completion of the Works, thus there will be no additional operational impacts following the Proposed Works. Therefore operational impacts are not considered further as part of this EIA Screening Request.

3.2. Programme

It is anticipated that the construction may commence in Q1 2025 and the duration for the completion of the works is approximately 12 to 18 months.

Piling activities are expected to take place during fair weather over spring / summer of Year 1.

Due to the isolated location of the works normal working hours are anticipated to take place 24 hours per day, 7 days per week. Piling would restricted to the hours between 07:00 and 19:00.

4. Licensing requirements

4.1. Consideration of EIA Screening Requirements

Under the EIA Regulations, it is necessary to screen certain developments to determine if a statutory EIA is required. Developments listed under Schedule 1 are subject to mandatory EIAs, while for those listed under Schedule 2 such requirement is subject to the discretion of the consenting authority.

The proposed activity does not meet criteria for Schedule 1 developments and the total footprint is expected to be below the threshold of 1 Ha for *construction of harbours and port installations, including fishing harbours* in Schedule 2 (Section 10(g)) of the EIA Regulations. However, confirmation is sought that a formal EIA is not required.

A Schedule 2 project is only considered an EIA project if it is likely to significantly impact the environment due to factors like its size, characteristics, or location. The Scottish Government Planning Circular 1 2017: Environmental Impact Assessment Regulations states that the key question in EIA screening is: "Would this particular development be likely to have significant effects on the environment?".

Schedule 3 provides criteria to assist with determining whether a Schedule 2 development constitutes an EIA Development. These screening criteria and the factors that were outlines under Schedule 3 were taken into consideration and are presented on the table below.

Table 4.1 Schedule 3 Screening criteria

Screening criteria	**Factors**
Characteristics of development	• Size and design of the works • Cumulation with other existing works and/or approved works • Use of natural resources, in particular land, soil, water and biodiversity • Production of waste • Pollution and nuisances • Risk of major accidents and/or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge • Risks to human health (for example due to water contamination or air pollution)

Location of development	• Existing and approved land use;
	• Relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground;
	• Absorption capacity of the natural environment, paying particular attention to the following areas:
	  ○ (i) wetlands, riparian areas, river mouths;
	  ○ (ii)coastal zones and the marine environment;
	  ○ (iii)mountain and forest areas;

	○ (iv)nature reserves and parks; ○ (v)European sites and other areas classified or protected under national legislation; ○ (vi)areas in which there has already been a failure to meet the environmental quality standards, laid down in retained EU law and relevant to the project, or in which it is considered that there is such a failure; ○ (vii)densely populated areas; ○ (viii)landscapes and sites of historical, cultural or archaeological significance.
Types and characteristics of the potential impact	• Magnitude and spatial extent of the impact (for example geographical area and size of the population likely to be affected); • Nature of the impact; • Transboundary nature of the impact; • Intensity and complexity of the impact; • Probability of the impact; • Expected onset, duration, frequency and reversibility of the impact; • Cumulation of the impact with the impact of other existing and/or approved development; • Possibility of effectively reducing the impact.

The required information is provided below to request a formal EIA Screening Opinion from SIC and Marine Directorate / Scottish Ministers.

4.2. EIA Screening Request Structure

Table 4.1 presents the structure of the information provided in this report in correspondence to the instructions provided by The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017.

Table 44.2 Screening Request Schedule of Information

Screening Opinion Request Information		**Report Section Reference(s)**
A description of the location of the proposed works, including a plan sufficient to identify the area in which the works are proposed to be sited		Section 23 Location
A description of the proposed works, including, in particular:		Section 3 The Proposed Works
	i) a list of all of the regulated activities which are proposed	Section 3 The Proposed Works
	ii) a description of the physical characteristics of the proposed works and, where relevant, works to be decommissioned	Section 3 The Proposed Works
	iii) a description of the location of the proposed works, with particular regard to the environmental sensitivity of geographical areas likely to be affected.	Section 3 The Proposed Works

A description of the aspects of the environment likely to be significantly affected by the proposed works.	Section 5 Known Sensitivities
A description of any likely significant effects, to the extent of the information available on such effects, of the proposed works on the environment resulting from either, or both, of the following: i) the expected residues and emissions and the production of waste, where relevant ii) the use of natural resources, in particular soil, land, water and biodiversity.	Section 6 Potential and Likely Significant Environmental Effects
A description of any features of the proposed works or proposed measures envisaged to avoid or prevent significant adverse effects on the environment.	Section 7 Embedded Mitigation Measures

5. Known Sensitivities

5.1. Protected Sites

The Construction Jetty is located within Sullom Voe Special Area of Conservation (SAC) which is designated for the Annex I habitat feature '1160 Large shallow inlets and bays'. Two other Annex I habitats, '1150 Coastal lagoons' and '1170 Reef', are present as qualifying features but are not primary reasons for the designation of the site. The entire SAC, including the waters around the Construction Jetty, supports the large shallow inlet and bay feature. Subtidal reef is scattered throughout the site with rocky reef extensively distributed and biogenic reef in the form of *Modiolus modiolus* (horse mussel) beds widespread, notably south of Little Roe Island near the entrance to the voe (Mair et al, 2010). Reef feature (type unknown) is reported directly south of the Construction Jetty (Figure 4.2). Coastal lagoon features are understood to be confined to two locations at Fugla Ness and Haggrister, respectively around 3.2 km west and 6.9 km southwest of the Construction Jetty (Herriot-Watt University, 2010). Several protected seal haul out areas are present locally, including Ungam approximately 1.4 km west of the Construction Jetty. Seals using this area are likely associated with Yell Sound Coast SAC.

In addition, a number of other designated sites are present in the local area. Sites within 15 km are detailed in Table 5.1 and Figure 5.1. This range is considered to represent a very conservative distance to encompass impacts for a project of this scale, but is used purely as a pragmatic measure to highlight potentially relevant sites and not as a formal screening. A high level evaluation of the potential for impacts to occur to these sites or associated features is made in Table 5.1. This considers the potential for connection between proposed works and each site/features, only ruling out impacts where it is clear that no such connection exists.

A range of environmental information is available for Sullom Voe. Hazardous substance data, collected and reported on the Marine Scotland interactive tool, does not include a datapoint in Sullom Voe (the closest points being Ronas Voe and Olna Firth). However, the dog whelk monitoring programme at Sullom Voe (Shucksmith, 2017) indicated a continued presence of Tributylin (TBT), likely to be due to reservoirs of residual TBT in subtidal sediments. It is notable that the Sullom Voe Oil Terminal is one of only two areas in Scotland issued with a 'Standing Approval' to permit the use of an agreed quantity of oil spill treatment products, under specific conditions and to ensure a rapid response to any oil spill event. Areas at risk in Sullom Voe from oil spill are identified and managed through the Shetland Oil Terminal Environmental Advisory Group (SOTEAG). SOTEAG designs and manages a series of extensive environmental monitoring programmes including:

- Chemical and macrobenthic monitoring (biennial)
- Intertidal rocky shore (annual) and dog whelk monitoring (biennial)
- Ornithological monitoring (full-time and annual)

Table 5.1 Designated sites

Site	Designation	Distance Direction	Designated/qualifying features	Potential for impact?
Sullom Voe	SAC	0 km	Coastal Lagoons (priority habitat)	Yes (remote effects)
			Large shallow inlets and bays	Yes (direct overlap)
			Reefs	Yes (remote effects, or directly if reef is present at location of works)
Yell Sound Coast	SAC Site of Special Scientific Interest (SSSI)	2-13 km (multiple locations)	European otter *(Lutra lutra)*	Yes (remote effects or mobile animals approaching area of influence)
			Harbour Seal *(Phoca Vitulina)*	
Ronas Hill-North Roe	SAC and Ramsar	9 km NW	Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the *Isoëto-Nanojuncetea*	No connection expected
			Natural dystrophic lakes and ponds	No connection expected
			Alpine and Boreal heaths	No connection expected
			Blanket bogs	No connection expected
			North Atlantic wet heaths with *Erica tetralix*	No connection expected

Site	Designation	Distance Direction	Designated/qualifying features	Potential for impact?
			European dry heaths	No connection expected
			Siliceous scree of the montane to snow levels	No connection expected
Otterswick and Graveland	SPA	11 km NE	Red-throated diver (*Gavia stellate*), breeding	Yes, potential for birds to forage in Sullom Voe
East Mainland Coast	SPA	6 km E	Breeding: - Red-throated diver *(Gavia stellata)* Non-breeding: - Great northern diver *(Gavia immer)* - Slavonian grebe *(Podiceps auratus)*	Yes, potential for red-throated diver to forage in Sullom Voe
Ronas Hill- North Roe and Tingon	SPA, Ramsar, and SSSI	9 km NW	SPA Breeding: - Red-throated diver *(Gavia stellata)* - Great skua *(Catharacta skua)* Additionally under Criterion 2 Ramsar in breeding season: - Northern fulmar *(Fulmarus glacialis)* - Whimbrel *(Numenius phaeopus islandicus)* - Arctic skua (*Stercorarius parasiticus)* - Black guillemot (*Cepphus 15rille)*	Yes, potential for red-throated diver to forage in Sullom Voe

Site	Designation	Distance Direction	Designated/qualifying features	Potential for impact?
			Harbour seal (*Phoca vitulina*) European otter (*Lutra lutra*) Arctic water flea (*Eurycercus glacialis*)	No connection expected
			Blanket Bog	No connection expected
			Scrub	No connection expected
			Geomorphology	No connection expected
			Montane assemblage	No connection expected
Graveland	SSSI	11 km NE	Red-throated diver (*Gavia stellate*), breeding	Yes, potential for red-throated diver to forage in Sullom Voe
Voxter Voe and Valayre Quarry	SSSI	6 km SSW	Moine	No connection expected
Dales Voe	SSSI	6 km SSE	Saltmarsh	No connection expected
Burn of Valayre	SSSI		Scrub-woodland	No connection expected

Site	Designation	Distance Direction	Designated/qualifying features	Potential for impact?
The Ayres of Swinister	SSSI	5 km SE	Coastal Geomorphology of Scotland	No connection expected
Clothister Hill Quarry	SSSI	5.8 km SW	Mineralogy of Scotland	No connection expected
West Sandwick	Local Nature Conservation Site (LNCS) and Geosite	14.8 km NNE	Dunes/Dunes grasslands supporting: - Bulbous buttercup (*Ranunculus bulbosus*) - Autumn gentian (*Gentianella amarella*) - Curved sedge (*Carex maritima*)	No connection expected
Ollaberry Meadow	LNCS	6.2 km NW	An unimproved, herb-rich, neutral meadow	No connection expected
			Quaking grass (*Briza media*)	No connection expected
Maggie Kettle's Loch	LNCS and Geosite	2.8 km WNW	An exposure of tsunami deposit in the peat that is related to the Storegga Slide	No connection expected
Bordigarth	LNCS	2.6 km ESE	Primary Interest: - Whimbrel (*Numenius phaeopus islandicus*) Secondary Interest: - Red-throated diver (*Gavia stellate*), breeding	No connection expected
Burn of Twa-Roes	LNCS	10.6 km NW	Banks of burn planted with native trees and hawkweeds (*Hieracium breve*) which is a UK Biodiversity Action Plan (UKBAP) species.	No connection expected

Site	Designation	Distance Direction	Designated/qualifying features	Potential for impact?
			Good examples of juniper (*Juniperus communis*) and greater sundew (*Drosera anglica*)	No connection expected
Voxter Wood	LNCS	5.6 km SW	Plantation woodland	No connection expected
Sullom Voe (5)	Shetland Shellfish Management Organisation (SSMO)	3.3 km SW	Horse mussel bed (*Modiolus modiolus*)	No connection expected
Quey Firth and Colla Firth (4)	SSMO	7.7 km NW	Horse mussel bed (*Modiolus modiolus*)	No connection expected
Ungam	Seal Haul Out Sites (SHOS)	1.4 km SW	Seals	Yes (remote effects)
Lamba	SHOS	6 km NNW	Seals	No connection expected
Little Roe	SHOS	4.1 NNE	Seals	No connection expected
Quoys of Garth, Garths Voe	Geosite		International Significance: - Pollen record - Tsunami deposit in peat related to Storegga Slide	No connection expected

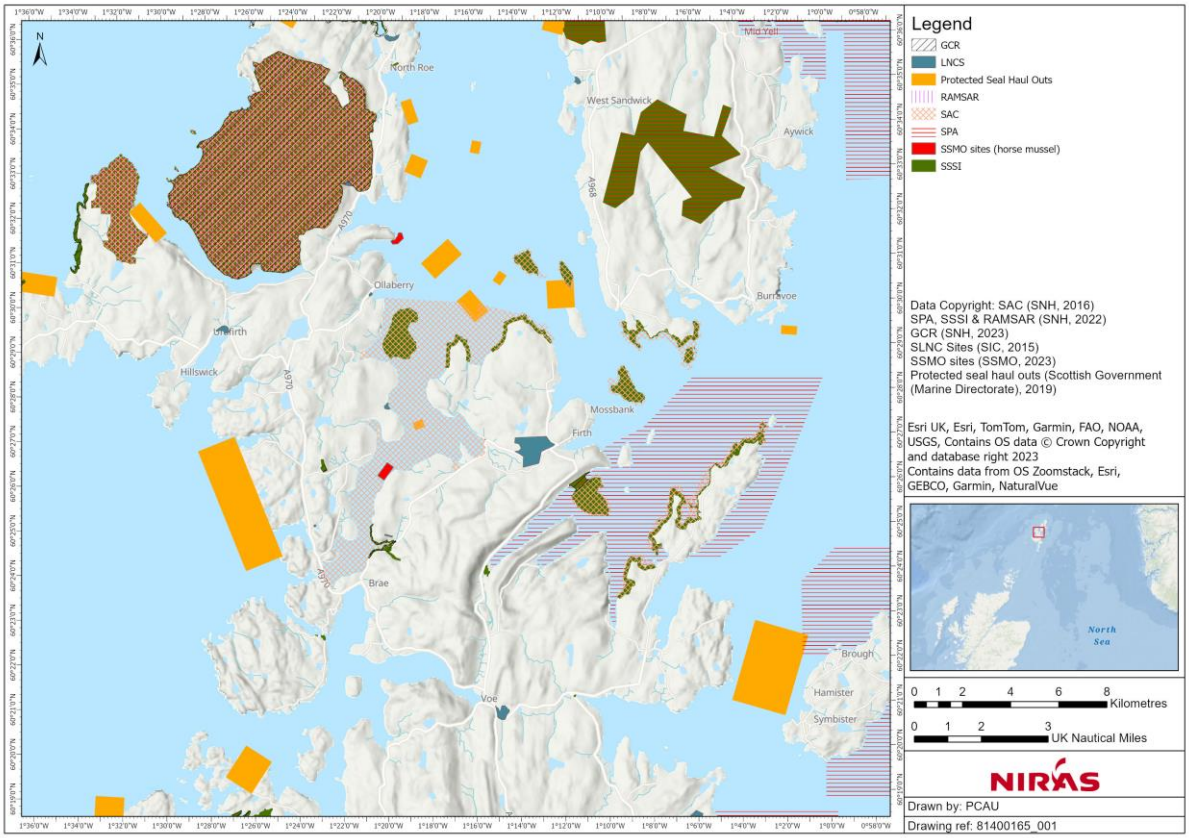

Figure 5.1 Designated sites.

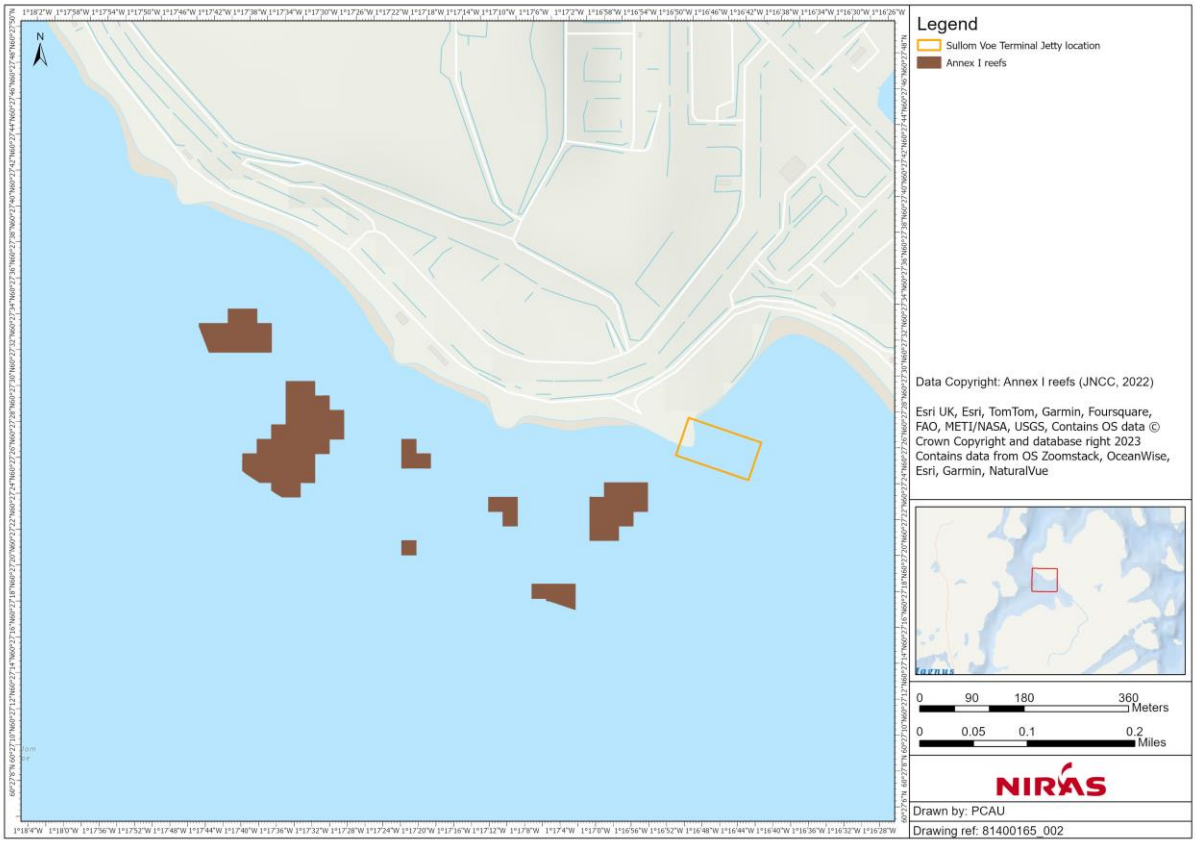

Figure 5.2 Indicated distribution of reef feature in area of Construction Jetty.

5.2. Biodiversity- terrestrial

5.2.1.1. Habitat

Although the immediate area around the Construction Jetty is industrialised, adjacent areas are characterised by heather moorland with areas of blanket bog on deep peat and grassland based agriculture (Anon, 2004). Peat in Shetland is recognised as a nationally important resource and there is a requirement to protect peatland in Scottish Planning Policy.

5.2.1.2. Otters

Areas of high otter density are characterised by low-lying peaty coastlines, with large numbers of otter holts and easy access to freshwater. Shucksmith (2017) identified the potential for otters to be found along most of the Shetland coastline, reaching their highest density in tidal sounds such as Hascosay Sound and Yell Sound. Indeed, Yell Sound is believed to support more than 2% of the entire otter population in Great Britain (JNCC, n.d.). Sullom Voe has been identified as an area with high to medium otter activity. Recognised as a European Protected Species, otters along with their resting and breeding sites, are legally safeguarded by the Conservation (Natural Habitats &c.) Regulations 1994 (as amended in Scotland). Due to their inquisitive nature, otters may establish resting spots near active harbours. The Shetland otter population is considered to be of special importance; they are believed to be genetically as well as morphologically distinct from their mainland counterparts (JNCC, n.d.).

5.2.1.3. Terrestrial Ornithology

Bird species such as red-throated diver and whimbrel occur in the surrounding moorland area, together with snipe, dunlin and ringed plover (Anon, 2004). In the wider Sullom Voe area, over wintering birds include eider, long tailed duck, golden-eye, red-breasted merganser, great northern diver and Slavonian grebe (Anon, 2004).

Wild birds are protected from habitat destruction and pollution, deliberate capture or killing, and significant disturbance under The Conservation of Habitats and Species (Amendment) (European Union (EU) Exit) Regulations 2019 and under the Wildlife and Countryside Act 1981 as amended by the Environmental Protection Act 1990. Under the Wildlife and Countryside Act 1981, it is additionally an offence to:

- Disturb any wild bird listed on Schedule 1 whilst it is building a nest or is in, on, or near a nest containing eggs or young, or whilst lekking;
- Disturb the dependent young of any wild bird listed on Schedule 1.

Species listed under Schedule I that occur in Shetland include red-throated diver, great northern diver, Leach's petrel, Slavonian grebe and whimbrel.

East Mainland Coast Special Protection Area (SPA), approximately 6 km away, designated for the protection of breeding red-throated diver and non-breeding great northern diver and Slavonian grebe is the closest SPA to the Construction Jetty. Given that there are no SPAs within 5 km of the jetty, which is considered a reasonably conservative buffer distance in this respect, there is no anticipated requirement for breeding bird or winter bird survey in relation to these works.

5.3. Biodiversity- marine

5.3.1.1. Habitats

As noted above in 5.1 and 5.2.1.3, Sullom Voe SAC provides protection to specific habitat features. The voe supports a diverse assemblage of marine habitats and associated species rich communities that are poorly represented elsewhere in Europe (NatureScot, 2021). The following species and habitats are classified as Priority Marine Features (PMFs) and occur within the Sullom Voe Harbour Area[1]:

- Dunes
- Horse mussel beds (*Modiolus modiolus*)
- Important mud habitats
- Kelp areas
- Rock areas
- Saltmarsh

Muddy sediments, present at a variety of depths, are colonised by abundant communities of polychaetes, such as sea-pens (*Virgularia* sp.), and bivalves, including horse mussels, and amphipods. Horse mussel beds, as well as stony reefs, provide habitat for other species, including brittle stars and sea squirts (NatureScot, 2021). Diverse communities of bivalves and polychaetes also occupy the intertidal sediments in lagoons near the mouth of Sullom Voe, along with the sea cucumber *Leptosynapta inhaerens*.

5.3.1.2. Fish and Marine mammals

Sullom Voe SAC provides important habitat for fish and marine mammals. It is within part of the spawning and nursery grounds for sandeel, Norway pout, lemon sole and haddock, together with part of a large saithe nursery ground and a plaice nursery ground (with the data drawing on Coull et al, 1998). Moreover, it sits within the Northern Isles Seal Conservation Area. Part of Yell Sound SAC, designated for the protection of harbour seals (*Phoca vitulina*) and otters (*Lutra lutra*), extends in to the mouth of Sullom Voe.

Seal density distribution data indicates there to be between 50 and >100 harbour seals per 25 km^2 grid cell in the Sullom Voe area (Carter et al, 2022) which is part of the Northern Isles Seal Conservation Area. In addition to the designated seal haul out site at Ungam, there are further designated seal haul out sites in Yell Sound. Shucksmith (2017) indicated that the seal haul outs in Sullom Voe are used by harbour seals in during the pupping season, around June and July (NatureScot, 2023), and whilst nursing. Haul out sites are also used during moulting around August (Morris *et al*, 2021). A 500 m buffer zone is maintained around protected seal haul-out sites to minimise the risk of disturbance to seals. These areas are of particular sensitivity whereby a more stringent assessment of impacts will be required and certain developments are less likely to be acceptable or may require stricter conditions, e.g. on frequency and routing of boat movements, avoiding activity during pupping or moulting seasons.

Grey seal may also occur but tend to be less common than harbour seals within sheltered voes in Shetland.

Cetaceans, which are European Protected Species, have also been shown to use Sullom Voe, including harbour porpoise (*Phocoena phocoena*), killer whales (*Orcinus orca*) and pilot whales (*Globicephala* spp.). A wider range of species may also potentially occur.

[1] Sullom Voe Harbour Area Masterplan https://www.shetland.gov.uk/downloads/file/6247/sullom-voe-master-plan-publication-version-july-2022

5.3.1.3. Marine Ornithology

There is a range of seabird data available for this region which indicates the potential presence of common guillemot, with the closest breeding seabirds to the south and west of Scatsta, at Sullom Voe Post Office to Mavis Grind. Data on birds across Shetland is provided in Shucksmith (2017) and indicates the presence of breeding tern (Arctic and common) and wintering red breasted merganser in the vicinity of Scatsta, 2.5 km south west of the jetty. Red throated diver which nest in freshwater lochs, including protected sites in Shetland, forage in marine areas, including Sullom Voe.

5.4. Socioeconomic sensitivities

The Construction Jetty is located within an industrialised area, surrounded largely by uninhabited open land. The closest domestic dwelling to the site of works is approximately 1 km to the southeast where there is small working farm. A small marina and harbour area is located at Sella Ness, around 1.1 km across Sullom Voe to the south.

Sullom Voe serves as a deep-water harbour equipped for oil and gas vessels, as well as smaller fishing and recreational boats. It is a busy area for vessels engaged in the collection of oil and gas from the terminal.

Two areas of special architectural and historic interest, containing key features which it is desirable to conserve, sustain and enhance are located within 2 km of the Construction Jetty[2]. The Kames, coastal defence battery located 100 m SE of Calback Ness is a WWII coastal defence battery designated as a Schedule monument of National significance. Additionally, Garth Pony Pund including its gates and adjoining outbuildings, is a Category B 19th century Listed building situated on sloping ground about 400 m from the shore of Garths Voe.

[2]Historic Environnement Scotland https://hesportal.maps.arcgis.com/apps/Viewer/index.html?appid=18d2608ac1284066ba3927312710d16d

6. Potential and Likely Significant Environmental Effects

6.1. Designated sites

A Habitats Regulations Appraisal (HRA) is a requirement under the provisions of the Habitats Regulations, where any proposal (including permitted development) may have a significant effect on a 'European Site'. The 'European Sites' in the UK consist of Special Protection Areas and Special Areas of Conservation. In this context, 'significant' means any effect on the features for which the site has been designated, which could undermine the site's conservation objectives, and which cannot be excluded on the basis of objective information.

Should HRA screening stage conclude that there is potential for likely significant effect (LSE), then an Appropriate Assessment (AA) will be undertaken. Taking into account the direct overlap with Sullom Voe SAC it is assumed that HRA screening will not rule out LSE and that AA will therefore be required in relation to this protected site, as well as any other for which LSE cannot be excluded beyond reasonable scientific doubt.

The necessary information to allow the competent authority to undertake an Appropriate Assessment will be provided with the Marine Licence application.

6.2. Protected Species

The Conservation (Natural Habitats, &c.) Regulations 1994, The Conservation of Offshore Marine Habitats and Species Regulations 2017 and the Wildlife and Countryside Act 1981 cover licensing for marine European Protected Species (EPS). Where an activity is likely to cause disturbance or injury to a EPS, an EPS licence is required to legally undertake the activity.

Where there is the possibility for disturbance to any individual EPS to occur, an EPS risk assessment must be carried out and the need for an EPS Licence determined.

The licensing of marine EPS in Scotland is shared between several regulators depending on the purpose and location of the activity in question. For activities taking place within 12 nautical miles (nm) of the coast (the Scottish territorial sea), EPS are activities, protected under The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended). For port and harbour developments Marine Directorate – Licensing Operations Team (MD-LOT) (on behalf of the Scottish Ministers) is the licensing authority.

Cetaceans are known to occur in Sullom Voe, including harbour porpoise, killer whales and pilot whales. All species of cetacean occurring in UK waters are listed in Annex IV of the Habitats Directive (European Commission Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Flora and Fauna) and therefore considered to be EPS.

Sullom Voe has also been identified as an area with medium to high levels of otter activity. Otters are also recognised as EPS, and they, along with their resting and breeding sites, are legally safeguarded by the Conservation (Natural Habitats &c.) Regulations 1994 (as amended in Scotland).

In relation to cetaceans, a risk assessment will be undertaken (including a quantitative underwater noise assessment), and a Protection Plan will be produced. The results of the risk assessment will assist in determining the necessity for an EPS Licence. The need for an EPS Licence will be formally determined by MD-LOT as the licensing authority with advice from NatureScot.

In relation to otter, it is planned that an otter survey will be commissioned. The survey would extend at least 200 metres around the coast on each side of the Construction Jetty and RoRo ramp to detect otter presence, including holts, guiding the formulation of mitigation strategies and any licensing needs.

6.3. Biodiversity -Terrestrial

6.3.1.1. Habitats

The proposed works will be carried out within the marine environment or from the existing Construction Jetty and RoRo ramp.

Given the nature of the works and the existing (industrialised) environment, no significant impacts are anticipated on any terrestrial habitat features.

6.3.1.2. Otters

See also Section 6.2.

Otters within or in close proximity to the construction jetty during construction works, could potentially be disturbed due to noise, loss of habitat, loss of foraging area, loss of commuting corridors, and at risk from vehicle interactions. Otters may also be impacted by the increase in light pollution resulting from artificial light during 24 hour construction activities.

6.3.1.3. Terrestrial Ornithology

Protected sites supporting species of ornithological significance are not present within 5 km of the construction jetty (representing a greater distance than any disturbance buffer indicated by Goodship et al, 2022). Given the industrialised nature of the works location it is expected that the proposed works do not present a risk of disturbing nesting birds or damaging their nests, or a risk of disturbance of important feeding and roosting sites.; however, a walkover survey would be undertaken to provide reassurance of this, especially in relation to adjacent undeveloped land.

Additionally, there is not potential for significant loss or damage to bird habitats, or in direct connectivity to a protected area for which birds are either a qualifying interest (SPA) or notified interest (SSSI).

6.4. Biodiversity - Marine

6.4.1.1. Habitats

Habitats, including any protected or priority marine features, are potentially sensitive to a range of pressures including direct damage, habitat loss/change under any extended footprint, suspended sediment mobilisation and smothering and release of contaminants.

If sufficient information is not available in existing data sources to inform impact assessment, notably in relation to the potential occurrence of reef habitat and/or priority marine features, then a localised benthic habitat survey (e.g. drop down camera) would be planned around the immediate vicinity of works. Based on initial review of available information, and the age of some data sets, it is assumed likely that such a survey would be required, but very unlikely that sensitive habitat (notably reef) would be present immediately adjacent to the current footprint of the Construction Jetty.

6.4.1.2. Fish and Marine mammals

Marine mammals and fish are potentially sensitive to a range of pressures including direct damage, disturbance due to noise and vibrations, and release of contaminants.

Marine mammals are highly sensitive to noise which can result in permanent or temporary threshold shifts in hearing, masking of vocalisations, temporary displacement or physical injury if exposed to sufficiently high sound pressure levels.

The risk of impacts from pollution events associated with the Activity is low and will be limited to negligible levels through implementation of embedded mitigation in the form of a Construction Environmental Management Plan. Fish may be subject to temporary disturbance from underwater noise but this is considered very unlikely to be significant in the context of the location which is not, for example, adjacent to a freshwater inlet important for migratory fish or a restricted breeding or spawning area based on review of Sottish NMPI open data sets.

The potential for significant impact to occur for marine mammals, particular disturbance by underwater noise, is however recognised. Further assessment is required to confirm this and elaborate details but should it prove necessary a range of additional mitigation could be applied in order to avoid significant impact. This includes use of marine mammal observers and techniques such as soft start to noisy activities such as piling, should this be necessary. Any such mitigation would also apply to basking shark which are protected by the Wildlife and Countryside Act 1981 (as amended) and potentially occur during summer months in the area.

See also Section 6.2.

6.4.1.3. Marine Ornithology

Species of ornithological significance are not present within 5 km of the construction jetty. Specifically, the proposed works do not present a risk of disturbing nesting birds or damaging their nests, or a risk of disturbance of important feeding and roosting sites. The potential for red-throated diver breeding in freshwater habitats in Shetland to forage in Sullom Voe is recognised but there is otherwise understood to be no potential for significant loss or damage to bird habitats, or direct connectivity to a protected area for which birds are either a qualifying interest (SPA) or notified interest (SSSI).

6.5. Socioeconomic sensitivities

The proposed works will allow the Construction Jetty to continue supporting the terminal's marine operations and other uses, including third party and external, into the future, thus providing socioeconomic benefits to the area. The works are carried out and confined in an industrialised area, thus it is unlikely to generate an effect on touristic or recreational activities.

There are no planned activities for the heritage assets, and it is improbable that the construction phase will adversely impact the surroundings of these assets.

The Proposed Project is expected to have minimal impact on the landscape, seascape, or visual aspects during construction. This assessment is based on the existing landscape and site context, as well as the nature of the works, which is small-scale and of limited geographical extent. Despite being a permanent addition, the development is situated within a functional jetty where its elements are already present. No significant landscape or visual effects are therefore anticipated during construction

7. Embedded Mitigation Measures

The following measures will be planned into the works and implemented to ensure that environmental impacts are minimised, notwithstanding any additional mitigation which may be identified following further consideration of impacts in support of consent applications.

1. Preparation of a CEMP.
2. As far as reasonably possible all waste and debris will be removed from site and, in particular, loss of materials into the marine environmental will be avoided.
3. Piling activities limited to 07:00 to 19:00.

Any further mitigation would be developed as required following further investigations as summarised in Section 8.

8. Summary and Conclusion

In accordance with the EIA Regulations, this report provides the information necessary to solicit a formal EIA Screening Opinion from the SIC and Marine Directorate.

The Construction Jetty works are required to ensure the facility's ongoing structural integrity and to continue servicing the SVT, marine users and possible future energy projects located in or around Shetland.

Table 8.1 provides a summary of the potential effects on environmental receptors resulting from the proposed works. Requirements for further investigations and mitigation are outlined. An environmental assessment will be completed in support of Marine Licence and Works Licence applications which will confirm these initial assessments and identify any further measures which may be required. It is planned that the following additional activities will be undertaken in support of the environmental assessment:

- Marine mammal risk assessment to determine any requirement for EPS licencing. This will be supported by an underwater noise study, including modelling if sufficient existing information is not available.
- Subtidal benthic survey. A drop down camera (or similar) investigation to survey benthic habitats immediately adjacent to the footprint of works.
- An otter survey to check for otter activity, including holts, in the area of works.
- A Report to Inform Habitat Regulations Appraisal, including HRA Screening.

Throughout the construction phase, a Construction Environmental Management Plan (CEMP) will be implemented. This plan will define optimal practices to prevent notable impacts on air quality, noise levels, the water environment, human health, and biodiversity.

It is respectfully submitted that the Proposed Works do constitute an 'EIA Development' according to the EIA Regulations and consequently a formal Environmental Impact Assessment (EIA) is not considered to be necessary. A screening opinion and comment on the proposed approach to permitting are now sought to allow the project to meet SIC, Marine Directorate and statutory consultees' requirements.

Table 8.1 Summary of potential effects

Receptor	Pressures/impact pathways	Potential Effect(s)	Expected impact significance (adverse unless indicated otherwise)	Proposed mitigation
Air and climate	Air Quality	Dust emissions could be created temporarily by works, including plant movements, but will be minimised by embedded mitigation. There are no residential properties in close proximity to the works, thus the residual effects on air quality are not anticipated to be significant.	Not significant	Embedded Mitigation: good industry practice along with dust and emissions management measures will be put into practise to reduce impact during works.
	Noise and Vibration	The works will generate airborne noise and vibration which will be minimised by adherence to a CEMP There are no residential properties in close proximity to the works, thus the residual effects in- air noise and vibration is not anticipated to be significant.	Not significant	Embedded Mitigation: good industry practice.
	Climate Change	Potential reduction of transit time and fuel use from not utilising alternative facilities which are more distant, will cancel out additional movements and potentially lead to an overall reduction in GHG emissions.	Not significant (neutral or positive)	No mitigation anticipated
Land and Water	Release of contaminants and production of waste	Potential release of unplanned emissions from the Construction Jetty, or plant, into the adjacent onshore or marine environments.	Not significant	Embedded Mitigation: good industry practice. Any contaminated materials encountered during the works would be extracted and sub-

Receptor	Pressures/impact pathways	Potential Effect(s)	Expected impact significance (adverse unless indicated otherwise)	Proposed mitigation
				ject to offsite disposal in accordance with all regulatory requirements.
	Footprint area change	The proposed development is compatible with existing and approved land uses on site. No net loss of land.	Not significant	No mitigation anticipated
Biodiversity	**Summary of key issues, please see Section 5 for further detail.**			
	Noise and vibration, physical presence/disturbance	Disturbance of sensitive receptors (e.g. marine mammals, otters, red-throated diver). Otter survey planned to check for presence of otters, including holts.	Not significant (after mitigation if required)	Embedded mitigation: good practice to be defined by a CEMP. Additional mitigation to be developed if required (e.g. for otters and marine mammals).
	Habitat loss	Any changes in the footprint area of the Construction Jetty are estimated to represent an increase of no more than 10% of the footprint area. A subtidal survey is required to identify the presence of any sensitive benthic habitats immediately adjacent to, or within potential range for impact.	Not significant	No mitigation anticipated, unless survey identifies the presence of sensitive benthic habitat features.

Receptor	Pressures/impact pathways	Potential Effect(s)	Expected impact significance (adverse unless indicated otherwise)	Proposed mitigation
	Light emissions	Light pollution could potentially affect receptors such as birds, bats or seals. Impacts will be minimised through good practice such as lighting working areas only and using directed lighting.	Not significant	Embedded mitigation: good industry practice.
Population, human health and material assets	Human Health	There are no residential properties in close proximity to the works, thus these are not likely to have any significant negative impacts to human health as a result of air quality, water quality, noise and vibration, or due to a major accident or incident.	Not significant	No mitigation required. Embedded mitigation: good industry practice.
	Traffic, Transport and Material Assets	Extending the jetty lifetime will benefit traffic and access materially due to the limited and distant alternative facilities in Shetland.	Not significant (neutral or positive)	No mitigation anticipated
	Socio-economics, Tourism and Recreation	Providing socioeconomic benefits by extending the lifetime of the jetty and its availability to its users.	Not significant (neutral or positive)	No mitigation anticipated
Cultural heritage and landscape	Cultural heritage	There are no planned activities impacting heritage assets	Not significant	No mitigation anticipated
	Landscape and Visual	Minimal impact on the landscape, seascape, or visual aspects during construction. due to the small-scale and limited geographical extent.	Not significant	No mitigation anticipated

9. References

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10. Appendix 1 – Construction Jetty General Arrangement

LOCATION PLAN, 1:1250

0 25 50 75 100m 125m

NOTES

1. ALL DIMENSIONS AND LEVELS ARE IN METRES UNLESS OTHERWISE STATED.
2. COORDINATE REFERENCE SYSTEM: BRITISH NATIONAL GRID.

LEGEND:

EXTENT OF PROPOSED WORK

EXTENT OF LAND OWNERSHIP

Rev.	Date	Description	App'd
-	-	ISSUED FOR SCREENING	ACW

Client :

SHETLAND ISLANDS COUNCIL
PORT OF SULLOM VOE
MARINE INFRASTRUCTURE
MAINTENANCE CONTRACT

Title :

2024 CONSTRUCTION JETTY
SCREENING
LOCATION PLAN

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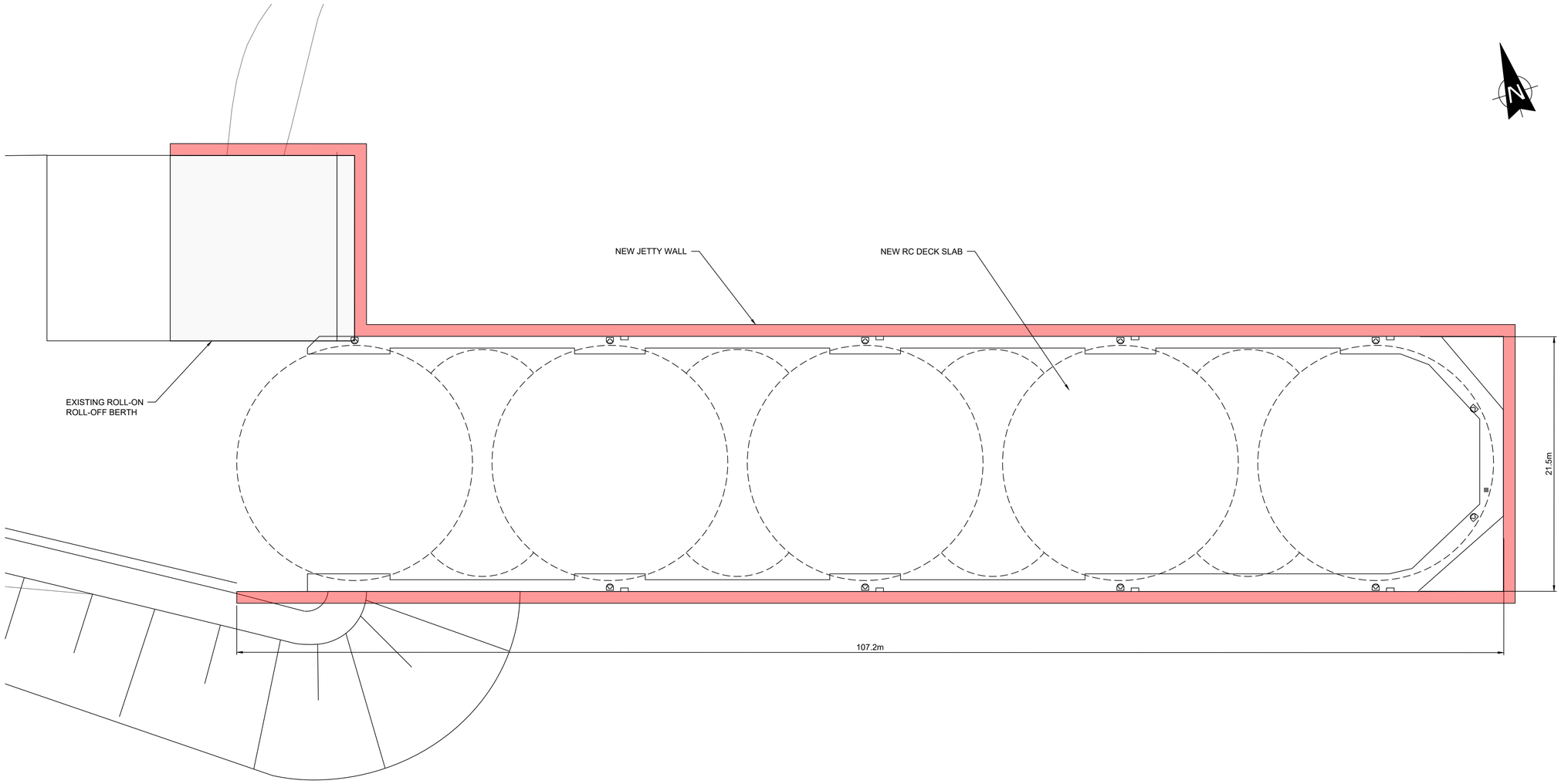
Project No: 81400165

Drawn	Checked	Approved	Scale (at A1): 1:1250
MAAO	IJB	ACW	Date: Jan 2024

Drg No: FIGURE 1

Rev -



GENERAL ARRANGEMENT, 1:200

0 5 10 15 20m

NOTES

1. ALL DIMENSIONS AND LEVELS ARE IN METRES UNLESS OTHERWISE STATED.

Rev.	Date	Description	App'd
-	19-01-24	ISSUED FOR SCREENING	ACW

Client :

SHETLAND ISLANDS COUNCIL
PORT OF SULLOM VOE
MARINE INFRASTRUCTURE
MAINTENANCE CONTRACT

Title :

2024 CONSTRUCTION JETTY
SCREENING
GENERAL ARRANGEMENT

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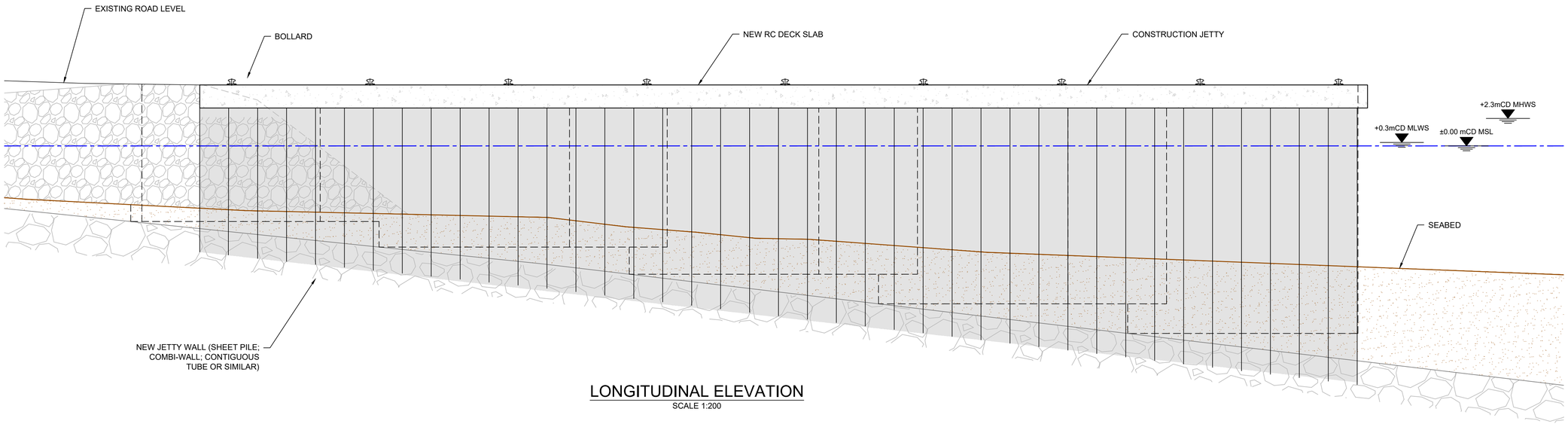
Project No: 81400165

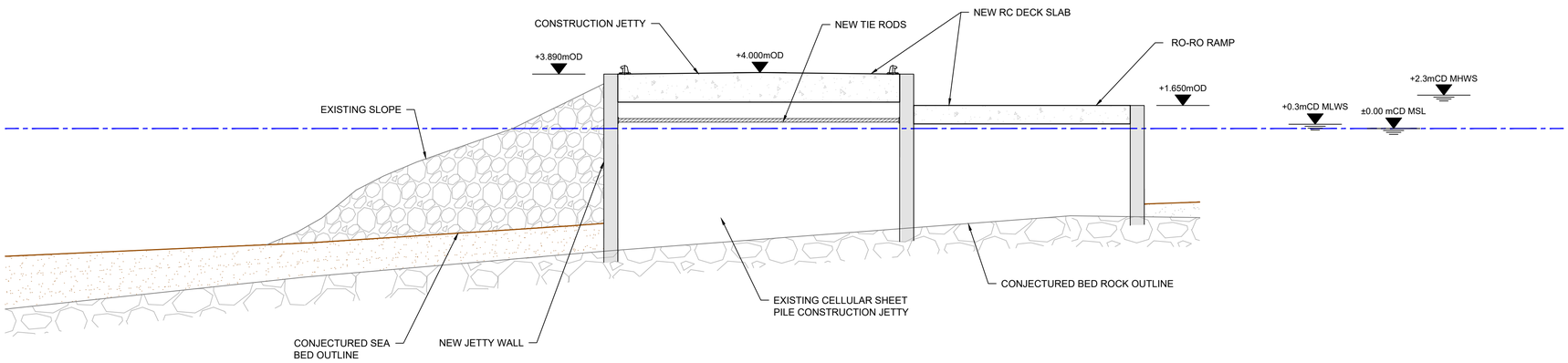
Drawn	Checked	Approved	Scale (at A1): 1:200
MAAO	IJB	ACW	Date: Jan 2024

Drg No: FIGURE 2

Rev -



LONGITUDINAL ELEVATION
SCALE 1:200



EAST ELEVATION
SCALE 1:200

SCALE, 1:200

0 5 10 15 20m

NOTES

1. ALL DIMENSIONS AND LEVELS ARE IN METRES UNLESS OTHERWISE STATED.

Rev.	Date	Description	App'd
-	19-01-24	ISSUED FOR SCREENING	ACW

Client :

SHETLAND ISLANDS COUNCIL
PORT OF SULLOM VOE
MARINE INFRASTRUCTURE MAINTENANCE CONTRACT

Title :

2024 CONSTRUCTION JETTY SCREENING
LONGITUDINAL ELEVATION AND EAST ELEVATION

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Project No: 81400165

Drawn	Checked	Approved	Scale (at A1): 1:200
MAAO	IJB	ACW	Date: Jan 2024

Drg No: FIGURE 3

Rev -