Tarenish, Bàgh nam Faoileann, South Uist

1. Development Proposal

Loch Duart Plc (LD) is investigating the potential of developing a new marine fish farm in Loch Carnan, South Uist. The proposed location for the new site, referred to as Tarenish, is approximately 550m east of the existing LD-operated Loch Carnan, Gashernish East, fish farm (Local Authority planning consent 13/00176). A standing biomass of 1500t is proposed for the new Tarenish site.

Figures 1 & 2 below show the proposed Tarenish site location (Ordnance Survey and Admiralty Chart extracts – see also Appendix 1 & 2) and site coordinates are detailed Table 1 (see also Appendix 3).

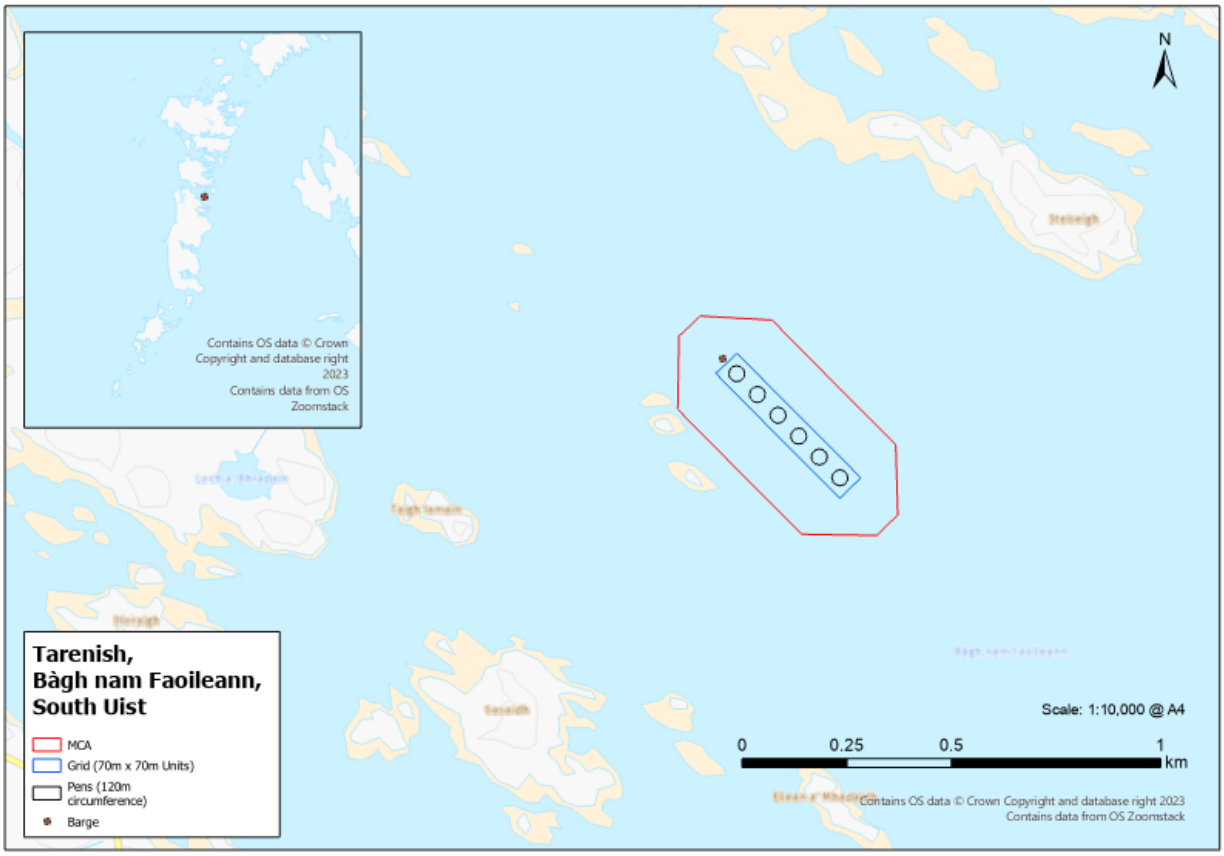


Figure 1 Ordnance Survey map extract showing proposed Tarenish, Loch Carnan site location.

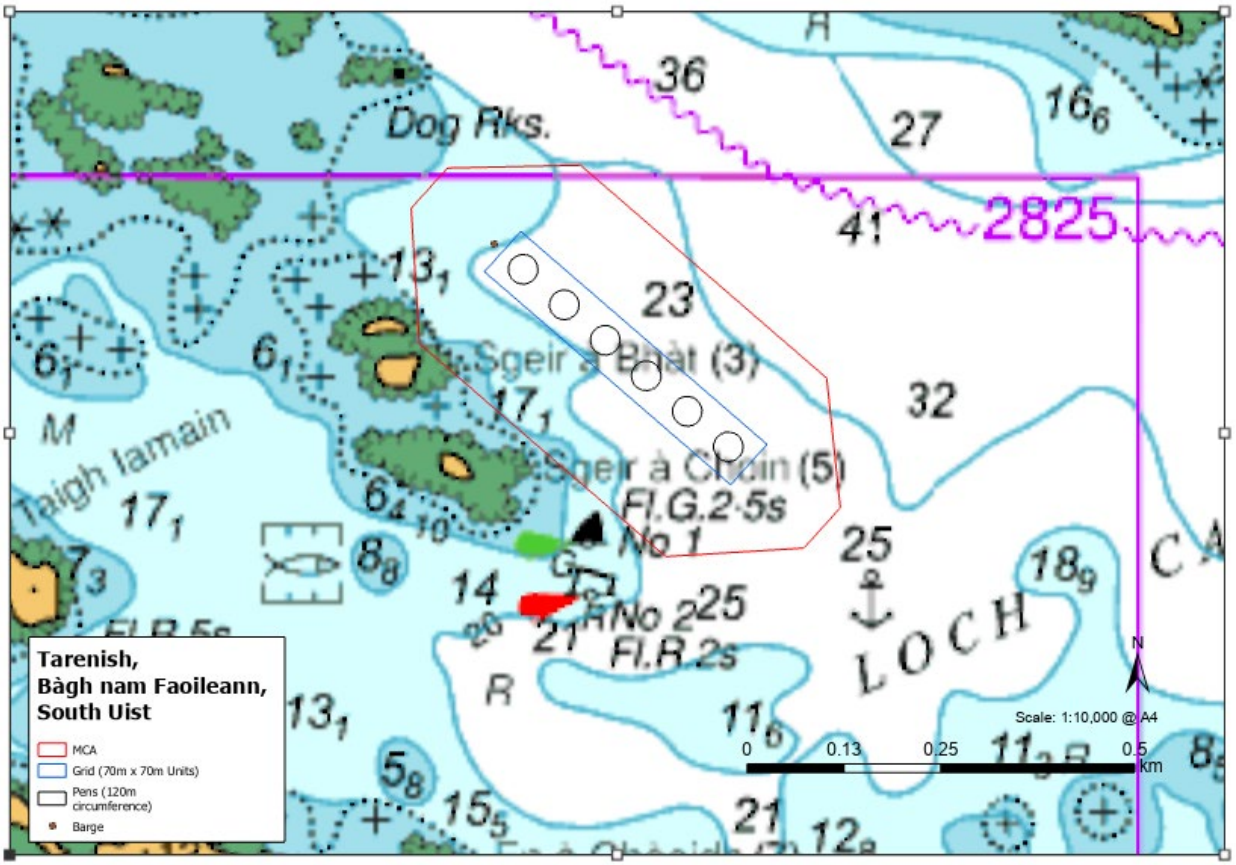


Figure 2 Admiralty chart extract showing proposed Tarenish, Loch Carnan site location. ©Crown Copyright and/or database rights. Reproduced by permission of The Keeper of Public Records and the UK Hydrographic Office (www.GOV.uk/UKHO). NOT TO BE USED FOR NAVIGATION.

Table 1 Tarenish site coordinates (OSGB Easting and Northings and WGS 1984 Latitudes and Longitudes)

	OSBG		WGS 1984	
	Easting	**Northing**	**Latitude**	**Longitude**
Tarenish Mooring Containment Area				
MCA 1	84427.8077	844117.1708	57° 22.659' N	007° 15.157' W
MCA 2	84478.6155	844165.3223	57° 22.687' N	007° 15.111' W
MCA 3	84650.0881	844155.6561	57° 22.689' N	007° 14.94' W
MCA 4	84945.7767	843857.382	57° 22.541' N	007° 14.623' W
MCA 5	84950.3098	843689.5032	57° 22.451' N	007° 14.605' W
MCA 6	84899.5023	843641.3514	57° 22.423' N	007° 14.652' W
MCA 7	84720.7719	843644.1383	57° 22.417' N	007° 14.83' W
MCA 8	84425.0822	843942.4137	57° 22.565' N	007° 15.147' W
Grid				
Grid_NW	84515.8104	844028.3985	57° 22.615' N	007° 15.063' W
Grid_NE	84566.6182	844076.55	57° 22.643' N	007° 15.016' W
Grid_SE	84862.3071	843778.2755	57° 22.495' N	007° 14.7' W
Grid_SW	84811.4996	843730.1237	57° 22.467' N	007° 14.746' W
Barge	84530.6538	844063.1271	57° 22.634' N	007° 15.051' W
Site Centre	84689.0587	843903.337	57° 22.555' N	007° 14.881' W

2. Development Rationale

This proposal aims to consolidate LD production activity in the Loch Carnan area. At present, five sites are SEPA consented within the Loch Carnan production area with a total maximum standing biomass of 2783.5 T (see Figure 3 and Table 2 for further details). Only one of the five consented sites is however presently operational (Loch Carnan, Gashernish East). This is due to a range of environmental considerations.

If the Tarenish development proceeds, LD operational activities will become focused on two sites: the existing Loch Carnan (Gashernish East) location and the proposed Tarenish site. All remaining consents will be relinquished. The total standing biomass for the area will be reduced from 2783.5 T to 2300 T across the two operational sites. The development will also ensure the long-term viability of LD activities in the Loch Carnan area. Developing a new aquaculture site will also provide a range of socio-economic benefits, including creating new jobs by developing skilled vocations within this rural and remote community.

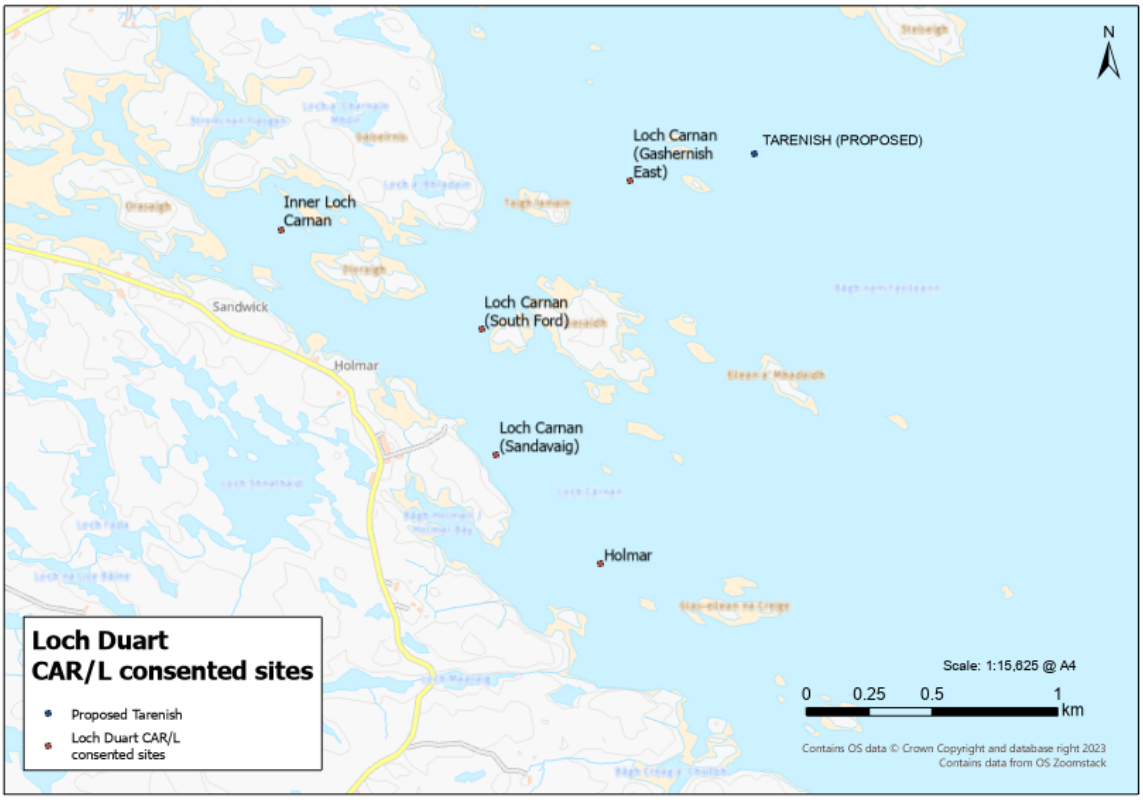


Figure 3 Ordnance survey map extract of presently consented aquaculture sites in the Loch Carnan area.

Table 2 Summary of presently consented and proposed production sites in the Loch Carnan area.

Site	Planning Consent	SEPA CAR/L	Currently consented Tonnage	Proposed Tonnage
Loch Carnan (South Ford)	FFA/WIC/004	CAR/L/1002966	600T	Relinquished
Loch Carnan (Gashernish East)	13/00176	CAR/L/1088166	800T	800 T
Holmar	n/a	CAR/L/1088167	473.5T	Relinquished
Inner Loch Carnan	n/a	CAR/L/1003904	410T	Relinquished
Loch Carnan (Sandavaig)	FFR/WIC/049	CAR/L/1002967	500T	Relinquished

PROPOSED Tarenish	-	-	-	1500 T
			TOTAL	**2783.5 T**	**2300 T**

3. Development Description

The proposed surface equipment will comprise 6 x 120m circular pens in 1 group, in a single line of 6 pens. Pens will be moored within 70m sub-surface grids and a 400T feed barge will be moored to the NW of the pen group. An MCA appropriate to site requirements will be established, and all equipment (surface and subsurface) will be maintained within this area. A maximum stocked tonnage of 1500T is proposed for the site. Final biomass and stocking density for the site will be confirmed through modelling and a CAR licence application to SEPA under The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended).

3.1 Location

The proposed new site is located within Loch Carnan and is approximately 550m east of the existing Loch Carnan (Gashernish East) fish farm. The coordinates of the proposed MCA, grid, and barge are shown in Table 1 (above). The proposed site is centred on Ordnance Survey Grid Ref NF 84689 43903. The proposed site is situated in the Bagh nam Faoilean coastal water body (ID: 200478) as classified under the Water Framework Directive (WFD).

3.2 Equipment

A summary of the equipment for the proposed Tarenish site is shown in Table 3. A scaled site plan is shown in Figure 4 (see also Appendix 4), pen profile in Figure 5 (see also Appendix 5), and scaled barge plans in Figure 6 (see also Appendix 6).

Table 3 Equipment summary for proposed site

		Proposed
Pen size		120m
Number of pens		6
Pen groups		1
Pen configuration		1 row of 6 pens
Pen nets		Net Depth: 15 m
		Mesh Size: 15 mm HDPE knotted
Top net support system		Pole support System - pole height 5.5 m (from base of walkway) with net attached
Top net		Skirt mesh size: 75 mm
		Ceiling Mesh size: 75 mm
		Total Net height: 5 m (from handrail)
Navigational Lighting		As per Northern Lighthouse Board guidance.
Feed System/Barge		400T Seamate barge
Maturation Lighting		Underwater maturation lights
		(Nov-May)
Buoys		14 x Grey 1100L Buoys
Equipment Surface Area		7,377.22 m^2
Grid size	Unit	70 m x 70 m
	TOTAL	70 m x 420 m

Grid Area	29,400 m^2
MCA Area	0.17 km^2

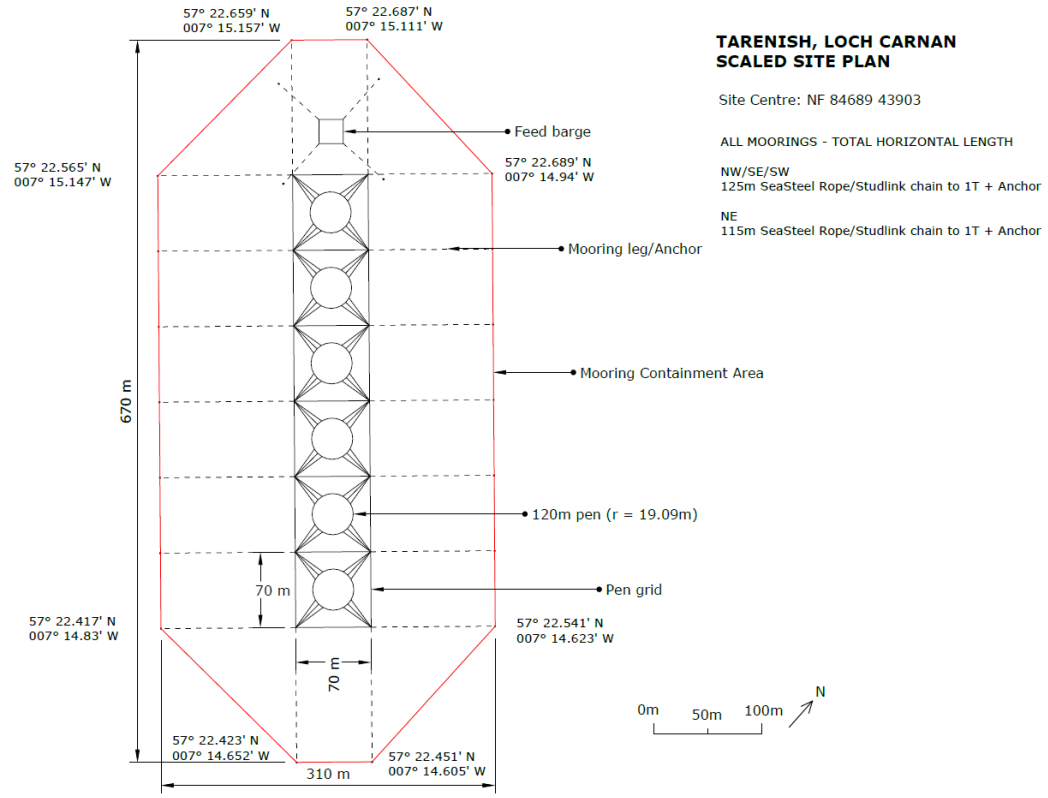


Figure 4 Scale site plan (Original scale drawing in Appendix 4).

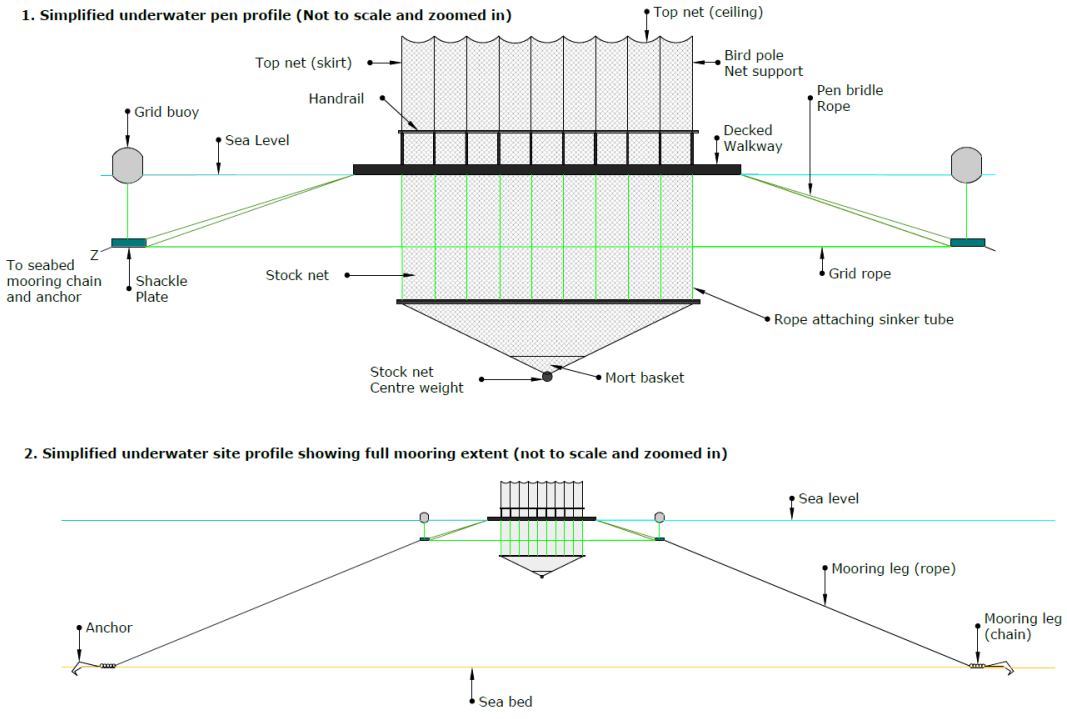


Figure 5 Equipment profiles (not to scale - original drawings in Appendix 5)

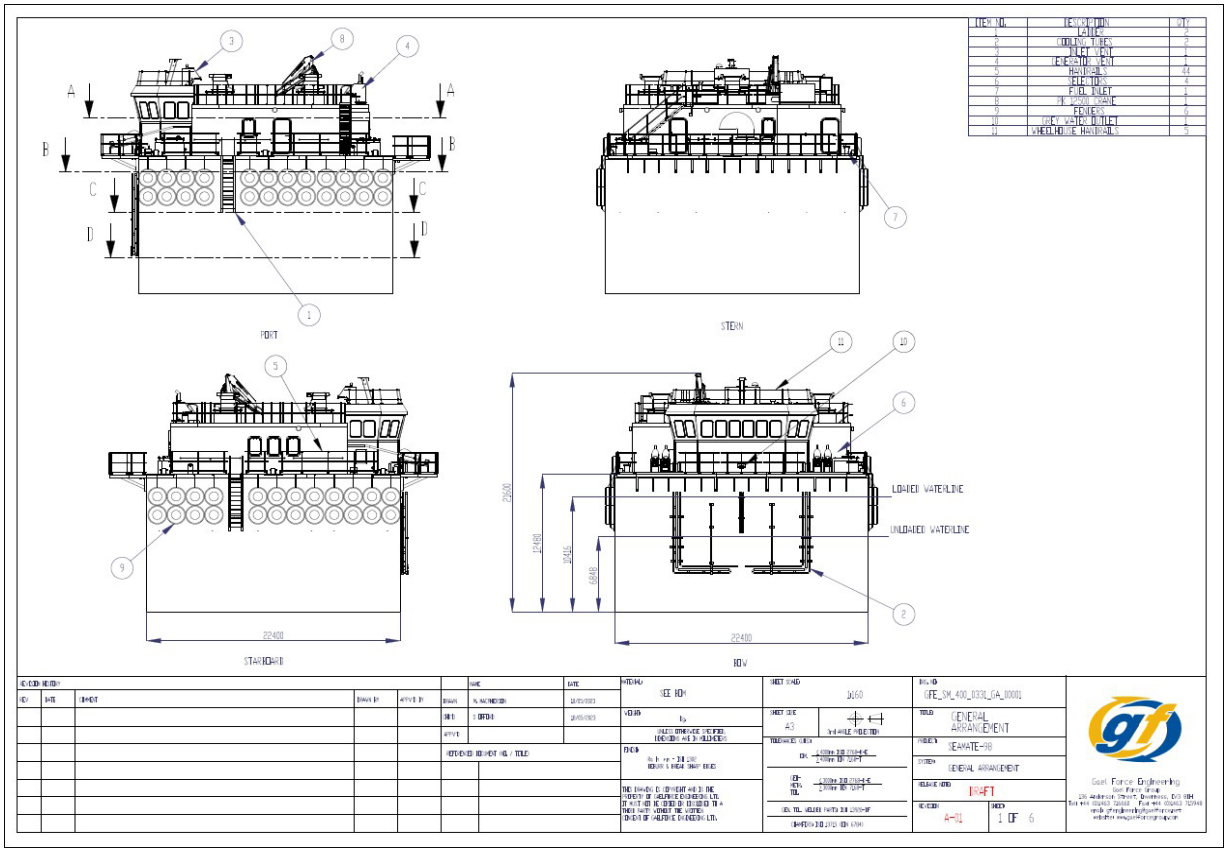


Figure 6 400T Seamate Barge Plans (original scaled drawings in Appendix 6).

3.3 Site operations

All site servicing will be carried out by vessels from the existing LD shore base facilities at Loch Carnan, near Holmar, South Uist, in conjunction with the proposed feed barge. Normal operational hours are 0800 – 1700 daily, including weekends. Additional vessels may be required on-site, such as during net cleaning processes or site maintenance.

The site's initial stocking will be by well boat transfer. Harvesting is carried out on-site by a well boat. During harvests, fish are transported off-site by the harvesting vessel for onward transport through Uig harbour, by road, to the LD processing facilities in Dingwall.

The development proposal will maintain a total of 8 full-time site staff positions, although it is anticipated that additional staffing may be necessary. Other local employment includes in-company support staff (engineers, skippers, biologists & administration staff) as well as the use of local services and businesses, including petrol stations, haulage companies, accommodation, specialist contractors, and processing facilities.

An outline of the proposed production summary is detailed in Table 4.

Table 4 Proposed production summary

	Proposed site
Maximum stocked biomass	1,500T
Maximum production biomass per cycle	2,250T
Production cycle	18-21 months
Stocking density	14.5 kg/m^3
Fallow Periods	28 days as per standard SEPA fallow period

4 Environmental considerations

4.1 Nature conservation: designated sites

Table 5 details the nature conservation designated sites and their qualifying features within a 20 km radius of the proposed Tarenish site centre. The proposed site is not located within any areas designated for nature conservation. The closest designated sites include the Inner Hebrides and the Minches Special Area of Conservation (SAC) located approximately 3.5 km E of the proposed site centre, and the South Uist Machair and Lochs Special Protection Area (SPA) located approximately 4.4 km SW from the proposed site centre. The potential impacts of the proposal on these features are discussed in Sections 4.2 to 4.4 below.

Table 5 Nature conservation designated sites and their qualifying features within a 20km radius of the proposed site centre.

Designation	**Type**	**Distance km/ bearing**	**Features**
Inner Hebrides and the Minches	SAC	3.5km E	Harbour porpoise *(Phocoena phocoena)*
South Uist Machair and Lochs	SPA	4.4km SW	Corncrake (*Crex crex*), breeding, Dunlin (*Calidris alpina schinzii*), breeding, Little tern (*Sternula albifrons*), breeding, Oystercatcher (*Haematopus ostralegus*), breeding, Redshank (*Tringa totanus*), breeding, Ringed plover (*Charadrius hiaticula*), breeding, Ringed plover (*Charadrius hiaticula*), non-breeding, Sanderling (*Calidris alba*), non-breeding
South Uist Machair and Lochs	RAMSAR	4.4km SW	Dunlin *(Calidris alpina schinzii)* breeding, Greylag goose *(Anser anser)* breeding, Loch trophic range, Machair, Machair Loch, Oligotrophic loch, Ringed plover (*Charadrius hiaticula*), breeding, Ringed plover (*Charadrius hiaticula*), non-breeding, Saline lagoon.
Loch Bee	SSSI	4.4km SW	Brackish water cockle (*Cerastoderma glaucum*), Breeding bird assemblage, Coastal Geomorphology of Scotland, Machair, Mute swan (*Cygnus olor*), non-breeding, Saline lagoon
Sea of the Hebrides	MPA	4.8km SE	Basking sharks *(Cetorhinus maximus),* Minke whales *(Balaenoptera acutorostrata)*, Fronts Marine Geomorphology of the Scottish Shelf Seabed.
Loch Druidibeg	SSSI	6.4km SSW	Blanket bog, Breeding bird assemblage, Coastal Geomorphology of Scotland, Machair, Machair loch, Oligotrophic loch, Sand dunes, Scrub, Subalpine dry heath
South Uist Machair	SAC	8 km SW	Annual vegetation of drift lines, Calcium-rich nutrient-poor lakes, lochs and pools, Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels, Dune grassland, Humid dune slacks, Lagoons, Machair, Naturally nutrient-rich lakes or lochs which are often dominated by pondweed, Nutrient-poor shallow waters with aquatic vegetation on sandy plains, Otter (*Lutra lutra*), Shifting dunes with marram, Slender naiad (*Najas flexilis*)
Loch Bee Machair	SSSI	8.1km WSW	Coastal Geomorphology of Scotland, Breeding bird assemblage, Machair, Dunlin *(Calidris alpina schinzii*) breeding.
West Coast of the Outer Hebrides	SPA	8.3km WNW	Black-throated diver (*Gavia arctica*), non-breeding, Eider (*Somateria mollissima*), non-breeding, Great northern diver (*Gavia immer*), non-breeding, Long-tailed duck (*Clangula hyemalis*), non-breeding, Red-breasted merganser (*Mergus serrator*), non-breeding, Red-throated diver (*Gavia stellata*), breeding, Slavonian grebe (*Podiceps auritus*), non-breeding
Aird and Borve, Benbecula	SPA	9.3km NW	Corncrake *(Crex crex)* breeding

West Benbecula Lochs	SSSI	10.1km NW	Eutrophic loch, Breeding bird assemblage, Open water transition fen.
Howmore Estuary, Lochs Roag and Fada	SSSI	10.5km SW	Coastal Geomorphology of Scotland, Breeding bird assemblage, Machair, Oligotrophic loch, Saline lagoon.
North Uist Machair and Islands	RAMSAR	14.9kn NNW	Dunlin (*Calidris alpina schinzii*), breeding, Greenland barnacle goose (*Branta leucopsis*), non-breeding, Oystercatcher (*Haematopus ostralegus*), breeding, Purple sandpiper (*Calidris maritima*), non-breeding, Redshank (*Tringa totanus*), breeding, Ringed plover (*Charadrius hiaticula*), breeding, Ringed plover (*Charadrius hiaticula*), non-breeding, Turnstone (*Arenaria interpres*), non-breeding
Baleshare and Kirkibost	SSSI	14.9km NNW	Machair, Breeding bird assemblage, Saltmarsh, Sand dunes.
North Uist Machair	SAC	14.9km NW	Annual vegetation of drift lines, Atlantic salt meadows, Dune grassland, Humid dune slacks, Machair, Naturally nutrient-rich lakes or lochs which are often dominated by pondweed, Shifting dunes, Shifting dunes with marram, Slender naiad *(Najas flexilis)*.
North Uist Machair and Islands	SPA	14.9km NW	Corncrake (*Crex crex*), breeding, Dunlin (*Calidris alpina schinzii*), breeding, Greenland barnacle goose (*Branta leucopsis*), non-breeding, Oystercatcher (*Haematopus ostralegus*), breeding, Purple sandpiper (*Calidris maritima*), non-breeding, Redshank (*Tringa totanus*), breeding, Ringed plover (*Charadrius hiaticula*), breeding, Ringed plover (*Charadrius hiaticula*), non-breeding, Turnstone (*Arenaria interpres*), non-breeding
Bornish and Ormiclate Machairs	SSSI	15.1km SSW	Machair, Breeding bird assemblage, Sand dunes, Loch trophic range.
Allt Bholagair	SSSI	15.3km SSW	Upland mixed ash woodland, Blanket bog, Dystrophic and oligotrophic lochs.
Obain Loch Euphoirt	SAC	16km NE	Lagoons.
Loch Obisary	SSSI	16.2km NNE	Saline lagoon.
Obain Loch Euphoirt	SSSI	18.8km NNW	Saline lagoon, Foxtail stonewort *(Lamprothamnium papulosum).*
Lochs at Clachan	SSSI	19km NNW	Saline lagoon, Dystrophic loch.

4.1 Benthic Environment

The primary (direct) benthic impacts of fish farms on benthic receptors are:

- Physical disturbance/abrasion of benthic habitats and species during the deployment and setting in of the mooring infrastructure during site construction. The same pressure and impacts may occur during site maintenance and site decommissioning.
- Changes to benthic habitats/fauna as a result of organic waste deposition and/or chemical residues from in-feed treatments during site operation.

Benthic impacts of marine fish farms arising from solid (particulate) waste deposition are regulated and monitored by SEPA under The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended). SEPA sets limits within CAR licences to enable effluent to be assimilated and broken down by natural processes without irreversible or lasting impact to the sea bed or species reliant on the sea bed.

The proposed site will be subject to an Aquaculture Modelling Screening and Risk Identification assessment by SEPA and if the development proceeds, a CAR licence application with supporting modelling will be submitted to SEPA for the proposed site in due course. If consented, the CAR licence will determine the maximum permitted standing biomass allowed at the site and the quantities of medicinal treatments that may be used at the site.

The site is not located with a nature conservation designated site for protected features which includes marine habitats and/or associated low-mobility benthic species. There are however a number of nature conservation designated sites (see Table 5 above) within a 20 km radius of the proposed site centre whose protected features do include marine habitats and/or associated low-mobility benthic species. The closest designation of this type is the Loch Bee SSSI (4.4 km SW; feature Brackish water cockle). Additionally, a search of the Geodatabase of Marine features adjacent to Scotland (GeMS) indicated there are four records of benthic Priority Marine Features (PMFs) within a 2km radius of the proposed site MCA (see Table 6). No PMF records were identified immediately within the proposed MCA area of the site.

Table 6. Benthic Priority Marine Features within a 2km radius of the proposed site centre

Priority Marine Features	No. of records in the search area	Closest record to the site; distance km/bearing
Tide-swept algal communities	1	1.5km W
Kelp and seaweed communities on sublittoral sediment	2	1.5km W
Low or variable salinity habitats (also recorded as Annex I 'Reefs')	1	1.9km W

Some disturbance to the benthic environment is anticipated during the installation and maintenance phases for the lifetime of the site, primarily in the deployment (laying and setting) of anchors. However, this disturbance will be highly localised, of very short duration (3-7 days) and highly infrequent; for example, mooring grid replacement takes place at approximately five yearly intervals. Furthermore, based on the GeMS geodatabase, there are no records of sensitive benthic habitats or associated low-mobility species within the proposed MCA where exposure to any anchoring-related abrasion could occur.

Potential impacts on benthic receptors relating to the deposition of particulate waste or chemical residues onto the seabed will be assessed by SEPA via the CAR licencing process for the proposed site. The closest operational fish farm Loch Carnan (Gashernish East), operated by LD, is located 506m west

of the proposed site (see Section 4.3 Water Column Environment for further details). It is however anticipated that the depositional benthic footprints of Loch Carnan (Gashernish East) and proposed Tarenish site will not overlap but this will be further assessed as part of the SEPA CAR licence application.

It is anticipated that an Environmental Impact Assessment (EIA) will be required to support the full planning application for the proposed site, including an assessment of the likely significant effects on benthic receptors. This will include an assessment of any potential cumulative and/or in-combination effects arising from the proposed development together with other developments in the wider area.

4.2 Water Column Environment

The primary (direct) impacts of fish farms on water quality are:

- Nutrient enrichment of the water column: Soluble nutrients comprising ammonia, nitrate and phosphates are released to the water column environment during aquaculture production. This occurs via direct and indirect mechanisms. Direct input occurs in the form of fish excreta and waste feed. Indirect input occurs due to remineralisation of nutrients in sediments within the depositional footprint of the site. The area of influence and degree of enrichment depends on a number of factors, including farm size (i.e. the biomass of fish), the ambient environmental conditions (i.e. hydrodynamics, water depth, wave exposure, topography and substrate type) and husbandry practices. Dissolved inorganic nutrients are rapidly assimilated by phytoplankton and bacteria and transferred to higher trophic levels in the planktonic food web. These nutrients can enhance the growth of marine plants and algae within the water column. High nutrient levels may lead to algal blooms and a depletion of oxygen in the water column.
- Chemical discharges into the water column: Chemotherapeutants, which are used to control sea lice levels, are administered either topically using bath administration methods or ingested by stock using in-feed methods. Chemotherapeutant agents used in bath treatments are released directly into the water column, and therefore, the potential for significant effects exists (in-feed treatment is known to have a more enhanced risk to marine sediments and organisms rather than the water column due to its specific mechanism of release – see Section 4.2 Benthic Environment).

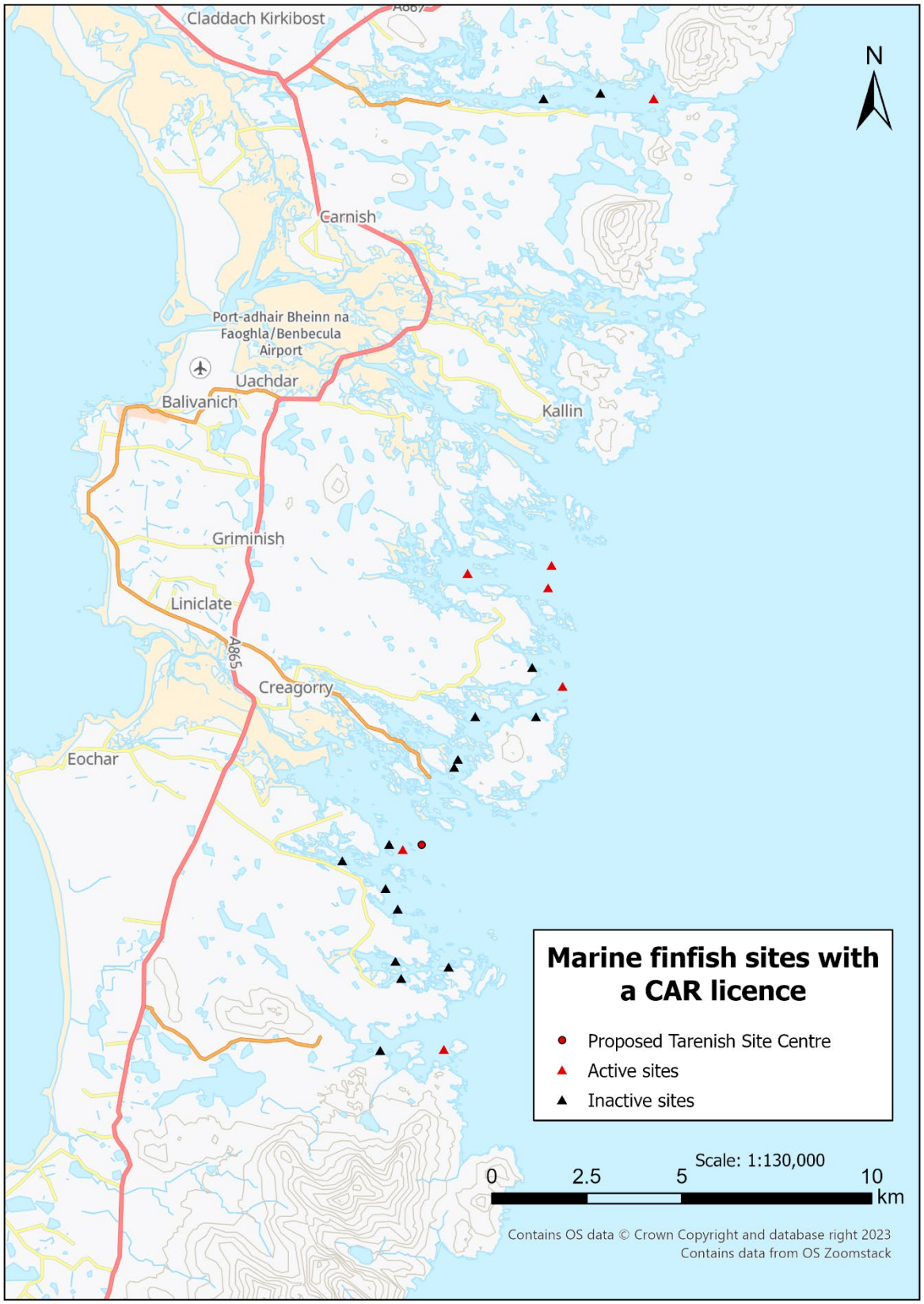
Impacts on the water column are regulated by SEPA under The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended) and advised by the Marine Directorate, who classify water bodies based on theoretical carrying capacities for aquaculture. The proposed site will be subject to an Aquaculture Modelling Screening and Risk Identification assessment by SEPA and if the development proceeds, a CAR licence application with supporting modelling will be submitted to SEPA for the proposed site in due course. If consented, the CAR licence will determine the maximum permitted standing biomass allowed at the site and the quantities of medicinal treatments that may be used at the site.

The full extent of the water column environment is the primary receptor of any potential direct effects resulting from the proposed fish farm. The proposed site is located within the Bagh nam Faoilean coastal water body (ID: 200478). It is 21.5 km^2 in area with an overall status of “High” based on the most recent Water Framework Directive (WFD) assessment (2023). This area is currently unclassified by the Marine Directorate Locational Guidelines for the Authorisation of Marine Fish Farms in Scottish Waters (Marine Scotland, 2024).

Through the CAR licensing process, SEPA set limits to ensure nutrient and chemical discharges are within the assimilative capacity of the receiving environment and can be broken down by natural process without irreversible or lasting impact. This process will include consideration of other consented active marine fish farms within the Loch Carnan coastal waterbody (see Table 7).

Table 7 CAR licence consented marine finfish farms within a 20 km radius of the proposed site centre

Site name	**Operator**	**Distance (km) & bearing from site centre**	**Receiving waterbody**	**Status**
South Ford East (Gashernish East)	Loch Duart	0.51 WSW	Bagh Nam Faolean	Active
South Ford (Gashernish)	Loch Duart	0.85 W	Bagh Nam Faolean	Inactive
Sandavaig (South Ford)	Loch Duart	1.49 SW	Bagh Nam Faolean	Inactive
Holmar	Loch Duart	1.79 SSW	Bagh Nam Faolean	Inactive
Inner Loch Carnan	Loch Duart	2.13 WSW	Bagh Nam Faolean	Inactive
Petersport South (Kilerivagh)	Bakkafrost Scotland	2.23 NNE	Loch a Laip	Inactive
Petersport North	Bakkafrost Scotland	2.47 NNE	Loch a Laip	Inactive
North Channel	Bakkafrost Scotland	3.13 SSW	Loch Sheilavaig	Inactive
North Bay	Bakkafrost Scotland	3.28 SSE	Loch Sheilavaig	Inactive
Hole Bay	Bakkafrost Scotland	3.54 S	Loch Sheilavaig	Inactive
Loch a Laip Inner	Bakkafrost Scotland	3.68 NNE	Loch a Laip	Inactive
Loch a Laip Outer	Bakkafrost Scotland	4.54 NE	Loch a Laip	Inactive
Skipport Outer (Ornish)	Mowi Scotland	5.41 S	Loch Skipport	Active
Eilean Haey	Mowi Scotland	5.51 SSW	Loch Skipport	Inactive
Outer Meanarvagh	Bakkafrost Scotland	5.53 NNE	Loch Meanarvagh	Inactive
Greanamul	Bakkafrost Scotland	5.6 NE	Flodaigh Beag to Rubha Roiseal	Active
Uiskevagh North	Bakkafrost Scotland	7.28 N	Loch Uiskevagh	Active
Maaey(East of Loch Uiskevagh)	Bakkafrost Scotland	7.57 NNE	Loch Uiskevagh	Active
Maragay Mor	Bakkafrost Scotland	8.14 NNE	Loch Uiskevagh	Active
Eilean nam Mult (Eport Inner)	Bakkafrost Scotland	19.96 N	Loch Eport	Inactive
Eilean Treanay	Bakkafrost Scotland	20.39 N	Loch Eport	Inactive
Eport Outer (Sgeir n Lolla)	Bakkafrost Scotland	20.62 NNE	Loch Eport	Active



Active = production in last 3 years; Inactive = no production in last 3 years

Figure 7 CAR licence consented marine finfish farms within a 20 km radius of the proposed site centre

It is anticipated that an EIA will be required to support the full planning application for the proposed site, including an assessment of the likely significant effects on the water column and cumulative or in-combination effects on this receptor arising from the proposed development together with other developments in the wider area.

4.3 Mobile species of Conservation Importance

This section relates to mobile species of conservation importance (SOCI), specifically fish, marine mammals (otters, seals, cetaceans) and birds, and considers the potential impacts to these receptors arising from the installation, standard operation and/or decommissioning of a marine fish farm. Potential impacts of equipment designed to deter the depredation of stock by predatory species (e.g. Acoustic Deterrent Devices (ADDs)) are addressed separately in Section 4.5 Predatory Interactions.

The primary (direct) potential impacts of fish farms on mobile SOCI include:

- Disturbance (visual or noise) during site installation, maintenance or decommissioning.
- Disturbance (visual or noise) during site operations.
- Injury from collisions with vessels and/or equipment during site operations.
- Displacement from essential habitats, e.g. foraging grounds, due to the presence of infrastructure.
- Entanglement and/or entrapment in pen netting (Top nets, pen nets or additional sub surface predator nets)
- Disturbance (noise) relating the use of Acoustic Deterrent Devices (ADDs) if required, to deter seal predation (addressed in Section 4.5 Predatory Interactions).

Secondary (indirect) impacts on mobile SOCI include:

- Deterioration in the condition of essential benthic habitats e.g. spawning, nursery or feeding grounds on which SOCI rely.

To avoid duplication within this screening and scoping report, impacts on benthic habitats and associated sessile or low mobility species of conservation importance have been considered separately in Section 4.2 Benthic Environment.

4.4.1 Fish

Scottish waters are estimated to support 250 fish species (Davison, 1996), some of which are designated as Priority Marine Features in Scottish territorial waters and/or adjacent UK waters, or protected under Schedule 3 of the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) (e.g. Atlantic salmon) or Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) (e.g. basking shark).

This section focuses on marine fish species. It should be noted that the legislative protections, baseline distribution and potential impacts on wild fish species comprising Atlantic salmon and Sea trout are discussed in Section 4.6 Wild Salmonids

The site is not located directly within a nature conservation designation for fish species. The nearest designation is the Sea of the Hebrides MPA (4.8km SE of the proposed site centre) which includes Basking sharks within its qualifying features (see Table 5). The Basking shark is a protected species under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and is a PMF in Scottish waters (inshore and offshore). Based on data from Ellis et al. (2012), the proposed site is also understood to be located within the nursery grounds for Spurdog *(Squalus acanthias),* Common skate *(Dipturus batis-complex),* Spotted ray *(Raja montagui),* Cod *(Gadus morhua),* Whiting *(Merlangius merlangus),* Blue whiting (*Micromesistius poutassou*), European hake (*Merluccius merluccius*), Herring (*Clupea harengus*), Ling (*Molva molva*), Mackerel (*Scomber scombrus*) and Anglerfish *(Lophius piscatorius).* It should be

noted however that these nursery grounds cover extensive areas in this region compared to the footprint of the proposed site. Impacts to the discussed fish species, including Basking shark, are therefore not anticipated.

4.4.2 Marine mammals

Otter (Lutra lutra)

Otters are protected under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) (the Habitats Regulation) and is therefore a European Protected Species (EPS). The site is not located directly within a nature designation where Otters are a qualifying feature. The nearest designation for this is the South Uist Machair SAC, located approximately 8 km SW of the proposed site (see Table 5). Anecdotally, no otters have been observed interacting with pens at the existing Loch Carnan (Gashernish East) site operations. Impacts on otters as a result of the proposed development are therefore not anticipated.

Seals

Seals are protected under a range of legislation, including the Marine (Scotland) Act 2010 (which enables the designation of Seal Conservation Areas), Schedule 3 of the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) (the Habitats Regulations) and The Protection of Seals (Designation of Haul-Out Sites) (Scotland) Order 2014. The site is not located directly within a designated area for seal activity however, Table 8 shows seven designated seal haul outs within a 20km radius of the proposed site centre. Anecdotally, seals are sometimes observed hauling out on fish farm infrastructure, indicating that rather than being displaced, they are sometimes attracted to it (LD staff, personal observations). The risk of potential impacts on seals, as a result of the proposed development is considered low, however on the basis of the risk of predatory seal interactions at the proposed site, these are assessed further in Section 4.5 Predatory interactions, below.

Table 8 Marine Directorate designated seal haulouts within a 20 km radius of the proposed site centre.

Designation name	Designation ID	Distance km/ bearings	Species
Inner Bagh nam Faoileann & Loch Chill Eireabhaigh	WI-005	1.6km NW	Harbour/common seal *(Phoca vitulina)*
Luib Bhan	WI-008	6.2km NW	Harbour/common seal *(Phoca vitulina)*
Flodda	WI-010	9.4km N	Harbour/common seal *(Phoca vitulina)*
Gairbh-Eilean Ronaigh	WI-007	12.8km NNE	Harbour/common seal *(Phoca vitulina)*
Rubha Bholuim	WI-013	15.4km S	Harbour/common seal *(Phoca vitulina)*
Inner Loch Eynort	WI-003	15.5km S	Harbour/common seal *(Phoca vitulina)*
Loch Langais	WI-006	19.3km N	Harbour/common seal *(Phoca vitulina)*

Cetaceans

In total, twenty-three species of cetaceans are known to be present in Scottish waters and are protected under The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) (the Habitats Regulations), which implement certain requirements of the Habitats Directive (European Council Directive 92/43/EEC on the conservation of natural habitats and of wild flora and fauna) in the UK. They are, therefore, considered an EPS. The site is not located directly within a nature conservation designation for cetacean species however, there are two designated nature conservation sites which include cetacean features within a 20 km search radius of the proposed site centre (see Table 5 above): the Inner Hebrides and the Minches SAC for Harbour Porpoise (3.5km E of the proposed site centre) and

the Sea of the Hebrides MPA for Minke whale (4.8km SE of the proposed site centre). Additionally, the SCANS-IV report (Gillies et al., 2023) for the SCANS Block CS-H (Minch) covering a 13,985 km^2 survey area, in which the proposed site is located, also lists Harbour porpoise, Minke whale, Bottlenose dolphin, Risso dolphin, Common dolphin, White-beaked dolphin *(Lagenorhynchus albirostris),* White-sided dolphin *(Lagenorhynchus* acutus) and Beaked whales (all species; *Ziphiidae)* as being potentially present within this region.

Typically, cetacean species are not anticipated to interact with the proposed development, in which case the risk of significant effects to these species is considered low. However, if Acoustic Deterrent Devices (ADDs) are consented for use at the proposed site as a scaled predator deterrence measure (see Section 4.5 Predatory interactions below), risk may increase. Prior to the use of any such equipment however, ADDs would only be deployed at the proposed site following consultation with the local authority, Marine Directorate and NatureScot, and are likely to require an EPS licence from the Marine Directorate if their use is sought. During such an application, any potential risk and impacts to cetaceans would be assessed appropriately.

Birds

Birds are protected under a range of legislation including the Wildlife and Countryside Act 1981 (as amended in Scotland) (Schedules 1 to 4), Directive 2009/147/EC of the European Parliament and of the Council on the conservation of wild birds (commonly known as the 'Birds Directive') and Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (commonly known as the 'Habitats Directive'), which complements and amends the Birds Directive.

This assessment, due to the proposed site location, considers only bird species that forage wholly or mainly in the marine environment (both coastal and offshore) through either diving or feeding on the water surface (i.e. seabirds and waterfowl). Whilst numerous nature conservation sites are designated for a range of seabird and waterfowl features within a 20 km radius of the proposed site centre (see Table 5 above), the proposed site is not specifically located within a designation established as a priority area for breeding or foraging sea bird species activity. Birds are however sometimes attracted to finfish installations as a depredation or scavenging opportunity, for example, to feed on any biofouling on the site's infrastructure.

If consented wildlife interactions with the proposed site will be managed in accordance with the Loch Duart ISO14001 accredited Environmental Management System and all relevant codes of practice. A site-specific Wildlife Interaction Plan (WIP) will set out the process for systematic monitoring of any entanglement /entrapment incidents at the proposed site and a scheme of embedded mitigation measures will be built into the design of the proposed site to avoid/reduce the potential for entanglement/entrapment or disturbance of mobile SOCI and hence reduce the overall risk of potential significant effects on these receptors.

It is anticipated that an EIA will be required to support the full planning application for the proposed site, including an assessment of the likely significant effects of the proposal on all mobile SOCI which will include an assessment of any potential cumulative and/or in-combination effects on these receptors arising from the proposed development together with other developments in the wider area.

4.5 Predatory interactions

This section relates to potential impacts on marine mammal or bird species which interact with the proposed fish farm (and specifically the equipment used to protect the farmed fish) to depredate stock. Note, that the potential impacts on all mobile species of conservation importance arising from the installation and general operation of the farm are described above in Section 4.4 Mobile species of Conservation Importance.

Potential impacts on predatory species interacting with farm sites include:

- Entanglement or entrapment of seals, otters and/or diving birds within containment nets (i.e. pen nets) and anti-predation netting (e.g. top nets and/or sub-surface predator nets if the latter are used).
- Disturbance or injury to seals and/or cetaceans from ADDs (if used).

Mobile species such grey and common seals, a variety of seabird species and otters are known to interact with aquaculture installations and potentially depredate stock. Many of these species are likely to be present within the vicinity of the proposed site, and some are protected by legislation as qualifying features of nature conservation designated sites in the wider area as described in Section 4.4 Mobile Species of Conservation Interest (above).

If consented wildlife interactions with the proposed site will be managed in accordance with the Loch Duart ISO14001 accredited Environmental Management System and all relevant codes of practice. A site-specific Wildlife Interaction Plan (WIP) will set out the process for systematic monitoring of any entanglement /entrapment incidents at the proposed site. A scheme of embedded mitigation measures will be built into the design of the proposed site to avoid/reduce the potential for entanglement/entrapment of any predatory species and, hence the risk of potential significant effects on these receptors.

Embedded mitigation

The primary preventative measures (embedded mitigation) to minimise potential for predatory interactions include:

- Tensioning of netting specific to site conditions.
- Maintaining low stocking densities.
- Removal of moribund fish and mortalities on a regular basis.
- Use of innovative netting materials for stock nets.

The proposed site will utilise two main types of netting: pen nets to contain stock and anti-predator nets to deter predatory interactions. The risk of predator entanglement/entrapment varies depending on the species interacting with the site.

Correct net tensioning of pen nets minimises the potential for diving seabird or seal entanglement in loose/sagging netting, whilst also providing the first line of defence against predatory seal interactions on a site. An additional embedded mitigation measure is the use of alternative materials such as HDPE knotted nets, rather than traditional nylon pen nets. HDPE knotted nets have a 6% dyneema core which makes the netting less 'pliable', offering greater resistance if seals 'push' on the nets to try and bite the fish within. In addition, the knots in the material discourage seals from pushing their noses against the net. This material has proven effective at other LD sites at deterring predatory seal interactions.

Top nets will be used on all pens for the duration of the production cycle and will be tensioned using pole-type net supports. Top nets will consist of mesh with apertures guided by NatureScot's advice (NatureScot, 2022). Current guidance suggests that <200mm half-mesh net ceilings (for pole supported top nets) should be used in areas likely to be regularly used by foraging gannets to minimise the risk of entanglement. Gannets are a feature of ten SPAs across Scotland; the nearest to the proposed site being The Seas off St Kilda SPA (68km NW), St Kilda SPA (83km NW) and North Rona and Sula Sgeir SPA (198km NNE). However, considering the foraging ranges of breeding gannets (315.2 km + 194.2km; Woodward et al, 2019), there is the potential for connectivity between gannets from all SPA colonies in Scotland and all marine waters across Scotland.

Non embedded mitigation

Sub-surface predator netting can also be additionally deployed around the pen nets to deter seal interactions. Subsurface anti-predator nets are comprised of brightly coloured mesh (mesh size to be

determined in consultation with NatureScot). To minimise the risk of entanglement/entrapment, sub-surface anti-predator nets will also be adequately tensioned to prevent loose/sagging netting and will only be deployed if and when required as part of a scaled hierarchy for predator deterrence (e.g. during periods of persistent and/or high levels of seal-depredation).

Should predatory activity at the site be persistent, and all other methods of deterrence and stock protection fail, underwater sound generating devices known as ADDs have historically been used on salmon farms to deter seals from depredating farmed stock and may potentially be used (with the appropriate consents) as part of a hierarchy of predator control measures at the proposed site.

ADDs are designed to deter predatory seal activity from salmon farms as the primary target species however, the auditory system in marine mammals has evolved to be highly sensitive and the Marine Directorate Licensing Operations Team (MD-LOT) considers that all commercially available ADDs also have the potential to more widely disturb cetaceans as non-target species and therefore are considered indirect receptors to ADD use at aquaculture sites. ADDs would only be deployed at the proposed site following consultation with the local authority, Marine Directorate and NatureScot, and are likely to require an EPS licence from the Marine Directorate if their use is sought.

The site-specific adaptive Wildlife Interaction Plan (WIP) will be submitted with any future planning application which will outline how the top nets and sub-surface predator nets (the latter if used) will be monitored. It is anticipated the likelihood and significance of effects to predatory species will require assessment under EIA regulations including an assessment of any potential cumulative and/or in-combination effects arising from the proposed development, together with other developments in the wider area.

4.6 Wild salmonids

Atlantic salmon (S*almo salar*) is a protected fish species under Schedule 3 of the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended), and both Atlantic salmon and Sea trout (*Salmo trutta*) are classed as PMFs during the marine phase of their lifecycle within Scottish territorial waters.

Potential impacts of aquaculture on wild salmonids include:

- Transfer of disease or parasites between farmed stock and wild salmonids.
- Fish escape with subsequent competition for resources between farmed and wild stock and/or the loss of genetic diversity or fitness in wild stocks if interbreeding between wild salmonids and escaped stock occurs.

Aquaculture has the potential to act as a reservoir of hosts for disease pathogens and sea lice in coastal environments. It provides the conditions for both the proliferation and spread of disease/lice among farmed species and potentially the transfer of diseases/lice to wild counterparts. This is due to the concentration of farmed fish within a highly localised area. Escaped farmed fish also pose a risk to wild salmonids and is a function of the probability of escapes and the magnitude and frequency of escape occurrences.

The proposed site lies within the Marine Directorate Disease Management Area 7a. Interactions between sea lice from finfish farms and wild salmonids are currently monitored by SEPA and the Marine Directorate and regulated by SEPA. Under The Fish Farming Businesses (Reporting) (Scotland) Order 2020, consented marine fish farms are obliged to conduct weekly sea lice monitoring at stocked sites and provide detailed records of any lice present (including the population structure in terms of life stage) to the Marine Directorate Fish Health Inspectorate (FHI). SEPA's new Sea Lice Risk Framework (SLRF) requires all proposals for new farms, or expansions of existing farms, to be assessed to determine whether they could pose a risk to wild salmonid populations via the CAR licence application process. As such, the proposed site will be subject to an initial Aquaculture Modelling Screening and Risk

Identification assessment by SEPA. A CAR licence application with supporting data and modelling will then be submitted to SEPA for the proposed site in due course. If consented, the CAR licence will specify the site-specific sea lice monitoring and reporting requirements.

Both Sea trout and Atlantic salmon may frequent the area of the proposed site. A search of the NMPi Scottish Salmon Rivers data indicated that there are numerous rivers throughout the Western Isles in which salmon are present. The site is within the Wild Salmonid Protection Zone (WSPZs) Bagh nam Faoilean, WSPZ ID 55. These protection zones are narrow and constrained bodies of water (e.g. sea lochs and sounds) that wild salmonids, Sea trout *(Salmo trutta),* and Atlantic salmon *(Salmo salar)* post-smolts must move through to migrate to the open sea.

Standard embedded mitigation measures are incorporated into the design and operation of all LD fish farms to avoid or reduce potential impacts on wild salmonids. Fish health and sea lice are managed within the terms of LD's Farm Management Statement (which includes a Sea Site Veterinary Health and Welfare Plan) and Salmon Scotland's Code of Good Practice guidelines. An Escape and Contingency Plan is also established for all sites.

With regard to sea lice, LD will employ an Integrated Pest Management Strategy at the site, widely recognised as the most effective method of parasite control and farmed fish health management. Prevention and early intervention are the basis of the strategy, with control measures including strategic stocking, good husbandry, biological control using cleanerfish, and access to both medicinal and non-medicinal treatment strategies. Should a sealice challenge occur, the intervention (treatment) of choice will depend on the availability of cleaner fish or other alternative lice control methods, the level of infection, the species and stage of lice, bioassay result(s) and any withdrawal period of medicines to be used. Only licensed medicines permitted by the SEPA CAR discharge consent licence relevant to the site will be administered.

It is anticipated the likelihood and significance of effects to wild salmonids will require assessment under EIA regulations including an assessment of any potential cumulative and/or in-combination effects arising from the proposed development, together with other developments in the wider area.

5 Human environment

5.1 Landscape and Visual Impacts

The potential impacts of fish farms on landscape and visual receptors include:

- Impacts on landscape and coastal character during site installation, maintenance or decommissioning.
- Impacts on landscape and coastal character during site operation.
- Impacts on the views and visual amenities of people within settlements and communities.
- Impacts on views experienced by people undertaking recreational activities on land or at sea.

Embedded mitigation to minimise or avoid any potential landscape and visual impacts will be established in the primary plan and design of the proposed site. This is based on NatureScot's Marine Aquaculture and the Landscape guidance (SNH, 2008 & 2011) in terms of the site location, site layout and detailed equipment design.

- The proposed site, if consented, will comprise 6 black circular polyethylene pens of 120m circumference. This style of pen is understood to be well absorbed into the surrounding landscape visually due to its muted colours. This will help to minimise the visual scale and impact from the locations where the site is potentially visible, especially when viewed from a distance.

- The proposed pole-supported top net system, whilst extending to 5m above the pen handrail, in conjunction with the use of grey top nets is considered less visually intrusive than alternative equipment such as the in pen, hamster wheel net supports and black top nets.
- A feed barge (22.4 m x 22.4 m, 400T) will be installed to the north of the pen group. The design and colouration of the feed barge will be similar to other large marine vessels that may use the area.
- Seasonal use will be made of underwater lighting at the site between November and May every second year. To minimise visual impact, an energy-efficient targeted LED system is utilised, which results in a very localised lighting effect which is not visible at a distance.

The local area to the proposed development is not subject to designation as a National Scenic Area. Aquaculture activity in the Loch Carnan area is also long established, and by the nature of the undulating terrestrial landscape, intermittent views of existing aquaculture sites in the coastal peripheries do occur. The broader area to which the operations are located are however largely characterized by existing infrastructure facilities relating to the Loch Carnan power station, and also the operational pier facilities where the Loch Carnan shore base activities are located. Further residential and commercial properties are also present in the wider area.

It is anticipated that based on the overall proposed location of the site and the nature of embedded mitigations within its design, views of the proposed development are unlikely to be significant or intrusive, and impacts to the areas landscape and visual amenity will be negligible. On this basis, it is proposed that landscape and visual Impacts be scoped out of the anticipated EIA process and report.

5.2 Cultural Heritage

The potential impacts of fish farms on cultural heritage receptors include:

- Physical damage to receptors in the marine environment during site construction or maintenance.
- Smothering of receptors in the marine environment during site operation (through particulate waste deposition).
- Indirect (secondary) effects on the setting of terrestrial cultural heritage receptors during the construction, maintenance or decommissioning of the site and/or from the presence of the site during operation.

A search of Historic Environment Scotland's Canmore and Pastmap databases suggests no world heritage sites, scheduled monuments, protected wrecks, historic Marine Protected Areas, garden and designed landscapes, battlefields or sites covered under the Protection of Military Remains Act 1986 are within the 5km radius of the proposed site. One Category A status listed building was identified (LB18740, 11 Rhughasinish. A 19th century rubble-built Hebridean-type cottage located approximately 3.2 WNW of the proposed site centre). It is considered unlikely however that the proposed development would have significant direct or indirect impacts on this receptor or its setting. This is due to the embedded mitigation features outlined in Section 5.1 landscape and visual impacts above being considered in conjunction with the established nature of aquaculture production in the wider area. The distance between the proposed site and the identified feature also reduces the likelihood of effects.

Out with those features outlined above, those within the remit of HES, a number of unscheduled archaeological features (both marine and terrestrial based) and category B and C listed buildings have been identified within a 5km radius of the proposed site centre. No records however have been identified within the immediate MCA footprint of the proposed site. Whilst such records are not recognised of

national importance, the local or regional significance of these features may however be apparent. The closest identified feature is the wreck of the steamship 'Arran' located approximately 1.2km NNW of the proposed site centre (Canmore ID 214470).

Broadly considering the range and location of identified historical receptors, impacts to cultural heritage features are to be considered unlikely and can be scoped out of the anticipated EIA assessment.

Table 9 Canmore Maritime Heritage Receptors within 5km of the proposed site centre.

Canmore Ref	**Location**	**Description**	**Distance km /bearing from site centre**
214470	Arran: Port Pheadair, Benbecula, Little Minch	Steamship (20th century)	1.2km NNW
102870	Unknown: Peter's Port, Benbecula, Little Minch	Steamship (Period unassigned)	1.3km NNW
321792	Eilean Roisin Dubh	Motor Vessel (Period unassigned)	1.9km NE
252410	Danzig: Wiay, Benbecula, Little Minch	Steamship (19th century)	2.8km NNE
255702	Derwent: Loch Carnan, South Uist, Little Minch	Steamship (19th century)	2.1km SSW
321789	Fairweather 4	Motor Fishing Vessel (Period unassigned)	2.2km SSW
206688	Fairweather Iv: Bagh Tholmair, Bagh Nam Faoilean, South Uist, Little Minch	Motor Fishing Vessel (20th century)	2.3km SSW
102869	Unknown: Glas-eileanan, South Uist, Little Minch	Paddle Steamer Steamship (Period unassigned)	3.3km SSE
295656	Derwent (Possibly): Glas-eileanan, South Uist, Little Minch	Paddle Steamer (19th century)	3.4km SSE
325023	Derwent (Possibly)	Paddle Steamer (Period unassigned)	3.7km SSE

5.3 Navigation Access and Other Commercial Maritime Activities

The potential impacts of fish farms on navigational safety and other commercial maritime users include:

- Obstruction of navigational access (including to designated anchorages) during site installation and operation.
- Displacement of other commercial activity from the development footprint.
- Indirect effects (arising from impacts on benthic habitats) on commercially exploited fish and shellfish species.

Under Part 4 of the Marine (Scotland) Act 2010, a marine licence is required from the Marine Directorate Licensing Operations Team (MD-LOT) for finfish aquaculture installations, which is determined in relation to potential hazards to navigation.

Navigation

The proposed site is located approximately 1.7 km NE of the Loch Carnan Shorebase near Holmar, South Uist, where the site would be serviced from. The proposed site is not located within any IMO traffic

routing schemes or recommended navigation channels. Indeed the proposed location has been chosen to avoid interference with locally used navigational routes to/from Loch Carnan based on previous engagement with local fishing stakeholders.

The closest operational passenger ferry routes are 25 km away and are located north and south of the proposed site. The routes are Uig (Isle of Skye) to Lochmaddy (North Uist) and Lochboisdale (South Uist) to Mallaig (Highlands), both served by CalMac Ferries. Given the substantial distance between the proposed site and these routes, no adverse impact on these local ferry services are anticipated.

The closest formal anchorage is approximately 0.44km SE of the proposed site centre. The proposed site location and layout has been specifically designed to maximise the distance between the site and this anchorage and hence minimise/prevent any access issues.

Commercial aquaculture and wild capture fisheries

The CAR licence consented marine fish farms located within 20km of the proposed site are listed in Table 7 above. Two shellfish farms were also identified within a 20km radius of the proposed site: Eilean Mhic Eachain (active; 17.4 km SSW) and Polcrabhacaig (inactive; 17.3 km SSW), both owned by Hebridean Oysters. No seaweed farms were identified within this area. Neither construction nor operational vessel traffic associated with the proposed site is expected to impact on commercial operations of the existing fish and shellfish farms identified, given their location and distance from the proposed Tarenish site.

A high-level characterisation of the distribution and value of commercial fisheries in the wider area was undertaken using annual sea fisheries statistics (MMO, 2023) and Scottish Government spatial data on fishing intensity and value by gear type (NMPi).

Whilst such data provides an overview of the types of fisheries targeted, gear used and the value of fisheries landed from the wider area, it is acknowledged that there are limitations when using this data to characterise the distribution and intensity of fishing activity, particularly for smaller inshore vessels under 12m in length. Furthermore, we acknowledge that fishing activity is often seasonal and given the dynamic and mobile nature of the industry, it is often hard to predict precisely where activity will take place from year to year.

The proposed Tarenish site lies within ICES rectangle 43E2. The average annual landings value between 2018 and 2022 from ICES rectangles 43E2 was £2.56 million. Over this time period, the majority of this landing value arose from creel fisheries for vessels under 12m in length and from demersal trawling or dredging for vessels over 12m in length. In 2022, the highest value of landings from ICES rectangles 43E2 arose from Nephrops (caught by creel and commercial trawls), Lobster (creel), Ballan wrasse (creel), Edible crab (primarily creel), velvet crab (creel) and Scallops (dredge).

At a more local level, the proposed site lies partially within two ICES c-squares: 7500:447:132:3 and 7500:447:132:4. The annual average value of the landings using creels, pots, and traps from the c-square 7500:447:132:3 between 2018 and 2022 was £22,079 over an average of 44 working days per year. The annual average value of the landings using the same gear type from the adjacent c-square (7500:447:132:4) was £8,283 over an average of 32 working days. Whilst this data indicates that small inshore vessels utilize these areas, this aggregated data does not enable further assessment of the specific areas fished within each of the 16.6 km^2 c-squares, including in the immediate vicinity of the proposed site. It can also be noted that the proposed Tarenish site (including the proposed mooring containment area) covers an area of 0.18 km^2, which comprises only 1.1% of a c-square area.

Other commercial marine sectors and infrastructure

The NMPi and KIS ORCA website were interrogated to determine the presence or absence of other marine infrastructure or assets in the wider study area.

Table 10 lists the subsea cables that were identified within 5km of the MCA boundary. With the exception of the BT Highlands & Islands Segment 115 telecommunications cable, it is anticipated that the distance of all other subsea cables identified from the proposed site centre exceeds the potential exclusion zone that may be enforced around this type of infrastructure. However, LD is currently consulting British Telecommunications (BT) regarding the BT Highlands & Islands (fibre) Segment 115 subsea cable and the necessary proximity agreements; the location of this subsea cable relative to the proposed site is shown in Figure 8 below. LD have surveyed the area to locate the cable accurately, and this information is to be used to collaborate with BT and clarify how close the infrastructure can be based without causing any disruption to farm work or cable maintenance.

Table 10 Subsea cables within 5km of the MCA boundary

Name	Type	Distance (km) / bearing
BT Highlands & Islands (fibre) Segment 115	Telecommunications cable	139 m NE
SSEN Skye-South Uist	Power cable	1.4 km S

No marine renewable lease areas (wave, tidal, offshore wind) or oil and gas infrastructure (surface or sub-surface) were identified in the wider study area.

It is expected that an assessment of the likely significance of the effects of the proposal, including on navigation, access and other commercial maritime activities, will be required in the anticipated EIA. This component of the EIA will include an assessment of any potential cumulative and/or in-combination effects on receptors arising from the proposed development, together with other developments in the wider area.

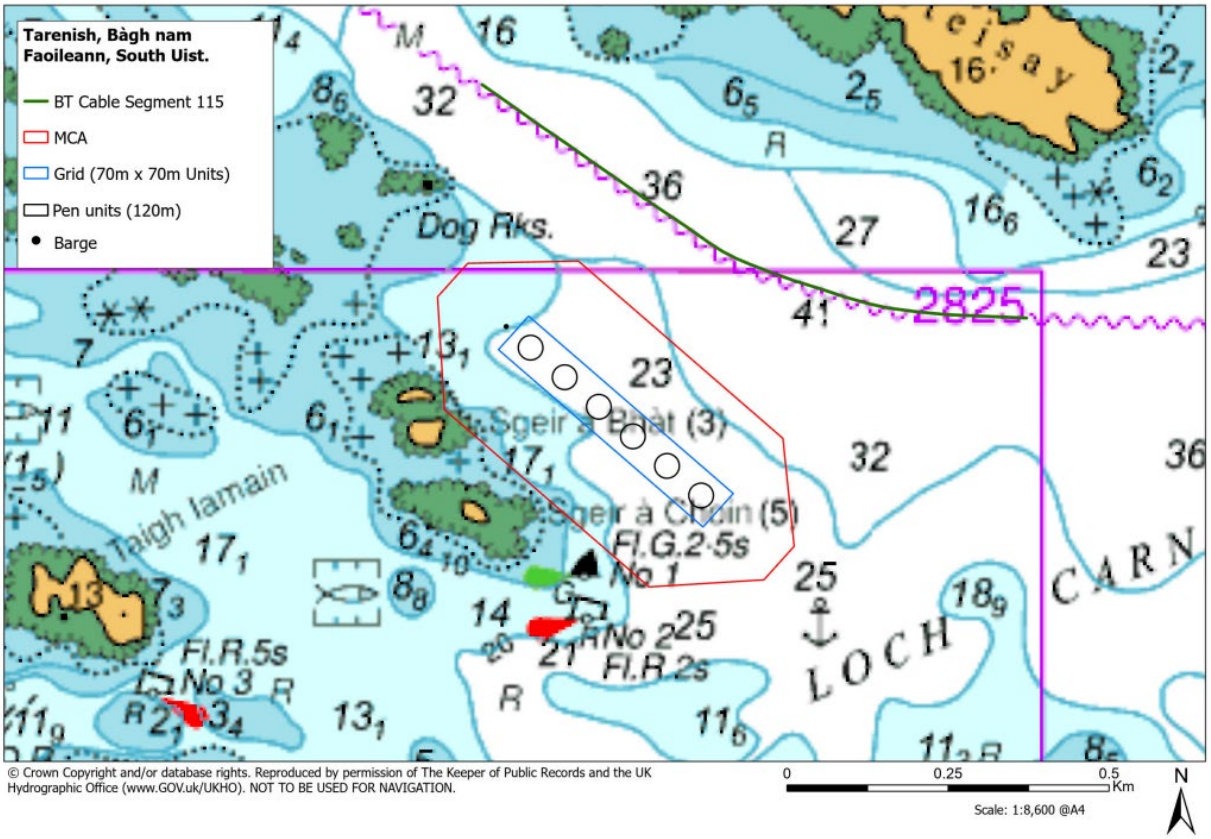


Figure 8 Location of the BT subsea telecommunication cable and the proposed Tarenish site.

5.4 Recreation Activities and Tourism

The potential impacts of fish farms on recreational and tourism receptors include:

- Displacement of activities in the vicinity of the proposed site and subsequent negative economic impacts.
- Indirect effects, e.g. reduction in visitors, due to landscape and visual impacts and/or impacts on the setting of heritage receptors and subsequent economic impacts (see Sections 5.1 and 5.2 respectively).

Recreational activities along the coastline and sea, along with tourism overall, play a significant role in the socio-economic activities of the Outer Hebrides. The Scottish Marine Recreation and Tourism Survey (Marine Scotland, 2016), accessible through the NMPi, offers insights into the distribution of recreational marine activities within Scottish waters.

A number of recreational marine activities (e.g. canoeing and kayaking; sailing and cruising at the sea, including dinghies) occur in the vicinity of the proposed site; however generally, the sailing and cruising activity occurs to the east of the proposed site, within the Little Minch along the coastline of South Uist.

The Scottish Marine Recreation and Tourism Survey data (Marine Scotland, 2016), viewed on the NMPi indicates that there is low/no visits to historic sites and attractions in any of the coastal areas adjacent to the proposed site.

Aquaculture is a long-established activity in this area. Based on the anticipated low levels of recreational and tourism activities in the vicinity of the proposed site, significant effects are not anticipated. As such we proposed that these receptors can be scoped out of the anticipated EIA.

5.5 Noise

Potential impacts of fish farms on local residents, businesses, visitors to the area or people undertaking coastal or marine recreational activities include:

- Noise disturbance arising from site operations (e.g. from equipment or vessels)

Aquaculture is a long-established activity in the Loch Carnan area and little variation to existing noise outputs are anticipated. If consented, farm operations such as routine vessel movements, feeding, husbandry, and net washing (the latter every 2-3 weeks during the summer and less frequently during the winter) will be conducted during normal hours of operation between 0800 – 1700 Monday to Sunday. Infrequently, additional operations such as freshwater treatments or grading using a wellboat and stocking/harvesting activities may occur outside of these hours.

Feeding activity occurs during daylight hours only, and any noise generated by the feed barge power system will be minimised through appropriate sound insulation (i.e. embedded design mitigation). The power generation system for the barge is located within the barge structure and is fitted with an exhaust silencer and acoustic enclosure, and as such, operating noise is minimal. Furthermore, the feed barge will be an electric-hybrid model, which will reduce the operational running time of the barge generator and hence any associated noise emissions.

The closest islands to the proposed site are Steiseigh (0.6km N) and Gasaidh (0.8km) both of which are uninhabited. Residential and commercial properties are present in the wider Loch Carnan area approximately 2.5km W of the proposed site. On this basis, and relative to the design mitigation features of the proposed site, it is not anticipated that there will be any likely significant effects from noise disturbance. As such, we propose that this topic should be scoped out of the anticipated EIA.

5.6 Traffic and transport

Potential impacts on local roads and road users in the area are:

- Increased traffic on local roads associated with the construction of the new site and/or the decommissioning of the existing site

- Increased traffic on local roads associated with site operation

If consented, the proposed Tarenish site will be serviced from the existing LD shorebase facilities and Loch Carnan Jetty near Holmar, South Uist. The jetty is located off an unnamed road branching off the A865, which also services residential and commercial properties in this area

If the proposed site is consented, no increase in personnel or road traffic (e.g. deliveries of supplies or removal of waste via road) during operation is anticipated, relative to LD's existing operations in the Loch Carnan area. Feed deliveries will be by sea directly to the feed barge, whilst fish harvested by wellboat will be transported to Uig harbour for onward road transport to processing facilities at Dingwall. As such, there are not anticipated to be any adverse impacts on local traffic and transport receptors, and we propose that this topic should be scoped out of the anticipated EIA.

5.7 Waste Management (non-fish)

LD has a Waste and Recycling Policy, which describes how the company controls and minimises the production of non-fish-related waste during their day-to-day operations. The policy is implemented via a number of key measures, including:

- Prioritising waste prevention, re-use and recycling over disposal.
- Minimising waste going to landfills (tracked as a KPI and reviewed annually).
- Choosing material to optimise product re-use (e.g. using selected netting materials to at least double the lifespan of traditional nets).
- Having recycling collection points available at all LDP sites.
- Minimising packaging waste in the supply chain.

The primary non-fish-related waste from an operational aquaculture site is feed packaging. LD minimises this waste product through bulk packaging or delivery of feed, and the proposed Tarenish site includes a 400T capacity feed barge that allows for bulk delivery of feed in support of this.

A policy of 'good housekeeping' will be employed on-site to minimise the potential for marine litter.

As such, there are not anticipated to be any adverse impacts related to non-fish waste management and we propose that this topic can be scoped out of the anticipated EIA.

5.8 Summary

Based on the information presented in Sections 4 and 5 above, we propose that the following receptors or topics have the potential to be affected by the proposed development and that they should be scoped into the anticipated EIA to enable assessment of the significance of any impacts:

- Nature conservation designated sites.
- Benthic environment.
- Water column environment.
- Mobile species of conservation importance.
- Predatory interactions.
- Wild salmonids.
- Navigation, access, and other commercial maritime activities.

We propose that there will be no likely significant effect on the following topics/receptors and that these should be scoped out of the anticipated EIA:

- Landscape and visual impacts.
- Cultural heritage, recreation activities, and tourism.

- Noise.
- Traffic and transport.
- Waste management (non-fish).

5.9 References

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