APPENDIX B

Fisheries Liaison Mitigation Action Plan (FLMAP)

Scottish & Southern Electricity Networks

SHEPD

Marine Scotland Licence (Section ID 33)

Scottish Hydro Electric Power Distribution

Fishing Liaison Mitigation Action Plan (covering all legitimate sea users)

Pentland East and Hoy

Contents

Scottish & Southern Electricity Networks

1 Introduction

1.1 Scottish Hydro Electric Power Distribution (SHEPD) would like to make it easy for all stakeholders who have interests in the submarine electricity cable planning process to have a strong voice in helping us determine our installation and protection practices but also inform our inspection and maintenance works. We are committed to open, honest and transparent communication and engagement.

1.2 This Fishing Liaison Mitigation Action Plan (FLMAP) outlines how SHEPD will interact with all legitimate sea users, prior to and during any works relating to two submarine electricity cables; Pentland East and Hoy.

1.3 The purpose of this FLMAP is to:

- Illustrate the associated risks to the commercial fisheries industry (and other legitimate sea users) and address the potential effects (highlighted in the marine licenced evidence).
- Identify how to minimise and mitigate potential impacts on local communities.

1.4 Cable works which will be covered by this FLMAP include cable inspections, cable surveys and installation of the Pentland East cable. For each planned activity a specific programme delivery document is produced to be used in conjunction with the FLMAP (FLMAP Delivery Programme - Pentland East and Hoy Cable Works).

1.5 This FLMAP describes how SHEPD will interact with all legitimate sea users, prior to, during and after the cable works. It also identifies the respective responsibilities of the Company Fishing Liaison Officer (CFLO), and the Fishing Industry Representative (FIR), and how the FIR and CFLO will operate. The FLMAP has been constructed to facilitate co-existence between SHEPD and other legitimate sea users.

1.6 The potential marine activities relevant to the area of cable works are listed below. A more detailed summary of activities is provided in Chapter 8 and visual representations of relevant activities are provided in Appendix F and Appendix G:

- The Pentland Firth and Hoy coasts are popular areas for marine recreation.
- There are low activity levels of the following activities; canoeing and kayaking, coasteering, jet skis, power boating, rowing and sculling,sea angling from a charter boat, sea angling from shore, and sailing and cruising.
- There are medium activity levels of motor cruising.
- The most frequently recorded recreational activities in the cable corridors are surfing, paddle boarding and diving.
- There are high levels of diving activity around Hoy as Scapa Flow (a body of water sheltered by the islands of mainland Orkney, Graemsay, Burray, South Ronaldsay and Hoy) is one of the top five diving locations in the world.
- There is an European Marine Energy Centre (EMEC) wave site to the northwest of the Hoy cable corridor.

- Conservation designations within the vicinity of the cable corridors are a Royal Society for the Protection of Birds (RSPB) reserve on Hoy which is also a Site of Special Scientific Interest (SSSI), Special Protection Area (SPA), Special Area of Conservation (SAC) and forms part of the Hoy and West Mainland National Scenic Area (NSA). On the Caithness Coast (mainland Scotland) is the North Caithness Cliffs SPA.
- There are known wreck sites around Scrabster Harbour (Pentland) with a few potential wreck sites within both cable corridors.

1.7 The predominant fishing activity in areas relevant to the Pentland East and Hoy cables is potting (creeling). This is reflective of the greatest effort and value, targeting crab and lobster. Potting vessels represent the primary fishery that may interact with the cable locations, particularly within 6 nautical miles (nm) of the coast.

1.8 As part of the marine licencing process, SSEN undertake early engagement with the general public and stakeholders and carry out Pre-Application Consultation (PAC) for any construction work required within the marine environment. It is stated within the PAC reports[1] how the views of our stakeholders have been considered and subsequently haveinfluenced our approach to cable design, installation and protection.

2 Communications

2.1 Information regarding any cable survey or construction works (referred to as works hereafter) required will be issued to all fishing and other relevant statutory and non-statutory stakeholders to ensure effective co-existence during the works (this includes inspection surveys and any subsequent requirement for cable installation).

2.2 Survey contractors shall provide details of all vessel movements, works and co-ordinates to the CFLO and the FIR who will disseminate this information.

2.3 Relevant stakeholders will be contacted before planned works which have the potential to impact them and, depending on the progress of this activity; it would also be common practice for there to be regular contact throughout the works.

2.4 In addition to statutory stakeholder engagement, SHEPD also has a number of obligations where it is necessary to engage with non-statutory stakeholders prior to, during and/or upon completion of certain work activities.

2.5 In the event that the date or duration of works deviates from the work programme detailed in the Pentland Firth East Cable Replacement Project Description, an update will be issued to the relevant stakeholders. Similarly, if the scope or methodology of the planned works changes, then relevant stakeholders, including any pertinent licensing authority, would be consulted. Any change and associated timeline would be agreed prior to the works commencing.

[1] The Pre-application Consultation Report is required by Marine (Scotland) Act 2010: Section 24

3 Scheduling of liaison and information distribution

3.1 The proposed schedule for dissemination of information to the fishing industry and other legitimate sea users is given in Table 1.

Table 1 Schedule for dissemination of information

Activity	Timescale for distribution
Inspection Programme	▪ Notice and information to be distributed at the earliest opportunity once available. ▪ Regular liaison and updates by FIR with local fishermen of proposed timings with confirmations of when operations are finalised. ▪ Regular liaison and updates by the CFLO with other legitimate sea users of proposed timings with confirmations when operations are finalised.
Surveys (including any requirement for pre-construction surveys) that have the potential to require gear relocation	▪ Regular liaison and updates by FIR with local fishermen, well in advance of disruption, defining who might be affected, where and when. Liaison to take into account weather, number of creels to be moved, bait ordering etc. ▪ Notices to Mariners (NtM) and information distributed not less than 20 days prior to survey mobilisation, if possible, to allow inclusion in the Kingfisher Fortnightly Bulletin.
Specific construction activities i.e. installation works	▪ NtMs and information distributed not less than 20 days, if possible, for individual construction vessels mobilisations. ▪ Regular liaison and updates by FIR with local fishermen of proposed timings with confirmations when operations are finalised. ▪ Regular liaison and updates by CFLO with other legitimate sea users of proposed timings with confirmations provided when planned works are finalised.
Meetings with fishery stakeholders	▪ Meetings as required during all works i.e. the inspection surveys and any subsequent requirements for pre-construction and construction phases.
Meetings with other legitimate sea users	▪ Meetings as required during all works i.e. the inspection surveys and any subsequent requirements for pre-construction and construction phases.
Ongoing Liaison	▪ Additional unscheduled liaison and consultation will be undertaken by either the CFLO or the FIR as required, to address issues or fishermen's concerns as they arise.

4 Formal Notifications

4.1 Details of the works will be distributed to all appropriate maritime users. Anticipated formal communications are provided in Table 2.

Table 2 Formal notifications

Type	Function	Distribution
Submarine electricity cable flyer	▪ It is intended that flyers will be issued for specific cable works. ▪ Flyers are not a requirement set out in the marine licence, but are a proactive initiative taken by SHEPD to provide as much advance warning of the forthcoming works as possible.	▪ Flyers[2] will be published through Kingfisher Information Service Offshore Renewables and Cable Awareness (KISORCA) and Fishing News. ▪ Flyers will be issued at least 4 weeks, if possible, prior to commencing the works to which they relate.
Notices to Mariners (NtM)	▪ NtMs and/or radio navigational warnings and publication in appropriate bulletins to comply with the conditions in the marine licence. ▪ Each NtM will contain full details of the vessel, location, activities, contact details etc. ▪ In the case of incidents or emergencies requiring notification, the NtM will be issued as soon as reasonably possible. Any actions required to notify an incident or emergency will go ahead even if there is not sufficient time for it to appear in the Kingfisher Fortnightly Bulletin.	▪ All NtM[3] will be issued by the CFLO ▪ NtMs will be published through KISORCA ▪ Details of the works will be promulgated to all appropriate maritime users ▪ NtMs will be issued at least 20 days prior to a works start date, if possible, to allow inclusion in the Kingfisher Fortnightly Bulletin. ▪ NtMs will be issued using the example NtM document at defined stages of the cable installation, for example: – HDD works – Relevant surveys – Cable installation
NtM updates	It is intended that the issued NtMs will comprehensively describe the planned activities. However, in the unlikely event that a significant change to these activities becomes apparent,	If required, the NtM will be issued by email to the Source Data Receipt at the UK Hydrographic Office and copied to the NTM distribution list.

[2] The flyer will contain the following information: submarine electricity cable specific information; useful contacts; working area; national and regional charts; site specific charts.

[3] For details see *Appendix D: Notice to Mariners* example template.

Type	Function	Distribution
	an update will be issued.	
Notices to static gear fishermen	Further specific liaison will take place between SHEPD's FIR and fishermen that work static fishing gear in areas relevant to the works.	The static gear fishermen will receive the NtMs.
Notices to mobile gear fishermen	Specific liaison between SHEPD's FIR and the fishermen who will be affected by the survey and installation operations will take place to ensure that they are given a minimum of 24 hours notice that vessels of restricted mobility will be in the area.	The mobile gear fishermen will receive the NtMs.
Notices to other legitimate sea users	Specific liaison between SHEPD's CFLO and the legitimate sea users who will be affected by operations will take place to ensure that they are given a minimum of 24 hours' notice that vessels of restricted mobility will be in the area.	Other legitimate sea users identified through consultation will receive the NtM (the distribution lists are given in Table 3, and Table 4).

5 Communication Distribution List

5.1 A key aim is to co-exist with sea users in the marine environment. Coexistence is assisted by actively engaging with sea users and stakeholdersthose with consented development rights. The way we approach engagement is specific to each cable although there is a generic set of *Standard Operating Procedures*[4] to ensure our approach is consistent and fair to all sea users in the area.

5.2 The Pentland East and Hoy submarine electricity cables have a discrete footprint in a small regional area. For simplicity, the communication distribution list has been separated into regional stakeholders, given in Table 3, and cable specific stakeholders in Table 4.

5.3 The communication distribution lists provides the following information on each stakeholder:

- Stakeholder name
- SHEPD point of contact
- Role of the stakeholder in the consent procedure
- Details of specific contact to be made by SHEPD with the stakeholder.

[4] Appendix A FLMAP Standard Operating Procedures

Table 3 Regional stakeholders roles and duties

Regional Stakeholder	SHEPD point of contact	Role	Details
Marine Scotland (MS)	Lead Engagement and Submarine Policy Manager	MS is the licensing authority for marine works and as such all consent conditions must be satisfied and evidenced as per the individual licence.	Specific contact with MS will be made ▪ **Prior to commencement of the works:** · to submit and seek approval of a cumulative impact review, if necessary · to notify the commencement of any cable works · to submit and seek approval of any updates to the communication programme[5] · to submit and seek approval of *The Construction Environmental Management Plan* as detailed within *FO-NET-CAB-405-E* where construction is required (Pentland East to Hoy) · to provide updates as and when appropriate for the planned works · to agree recipients of real-time data relating to the planned works ▪ **During the works:** · to allow access for an authorised Enforcement Officer to inspect the works · to notify any changes to the works that may affect the validity of the licence · to submit and seek approval of plans to mitigate navigational dangers or risks, where required ▪ **On completion of the works:** · to notify the completion of the works · to submit an assessment of any risks posed by the installed cable

[5] For details see *Appendix E: Communication programme*

Regional Stakeholder	SHEPD point of contact	Role	Details
Scottish Natural Heritage (SNH)	Lead Engagement and Submarine Policy Manager	SNH is the Scottish public body responsible for natural heritage. SNH advises the Scottish Government regarding nature conservation requirements when deciding whether to consent activities. SNH are a consultee to Marine Scotland and as such they can influence licence conditions.	We will engage on matters related to the project as required.
Maritime and Coastguard Agency (MCA)	Up to work starting Stakeholder Engagement Manager During works Project Manager	The MCA is an executive agency of the United Kingdom and is responsible for implementing British and international maritime law and safety policy. The MCA are a consultee to Marine Scotland and as such they can influence licence conditions.	We will engage on matters related to the project as required.
Northern Lighthouse Board (NLB)	Up to work starting Stakeholder Engagement Manager During works Project Manager	The NLB are a consultee to Marine Scotland and as such they can influence licence conditions.	We will engage on matters related to the project as required.
Scottish Environment Protection Agency (SEPA)	Up to work starting Stakeholder Engagement Manager During works Project Manager	SEPA is Scotland's environmental regulator. SEPA is a consultee to Marine Scotland and as such they can influence licence conditions.	We will engage on matters related to the project as required.

Regional Stakeholder	SHEPD point of contact	Role	Details
Royal Society for the Protection of Birds (RSPB)	Lead Engagement and Submarine Policy Manager	RSPB are a consultee to Marine Scotland and as such they can influence licence conditions.	We will engage on matters related to the project as required.
Scottish Fishermen's Federation (SFF)	CFLO	The SFF represent predominately the mobile commercial fishing fleet that operate in deeper waters outside of where the cables will be replaced.	Specific contact will be made with the SFF and the associations that are represented by the SFF. Regular liaison and updates by CFLO will be undertaken with meetings as required. As part of ongoing regular liaison with the SFF, SHEPD will keep the SFF apprised of the installation as it proceeds, specifically in relation to the presence of support vessels.
Orkney Management Group (RIFG)	CFLO	The organisation is legally authorised to impose restrictions and regulations, to issue licences and the right to set tolls.	Specific contact will be made with the Orkney Management Group. Regular dialogue between the CFLO and the OSF will be maintained prior to and during the installation work, noting that both mobile and static gear commercial fishing operations are present in the area.
Scottish Creel Fishermen's Federation (SCFF)	CFLO	SCFF is the national trade association for the creel fishing industry. It is comprised of ten fishermen's associations including the Scottish Scallop Divers Association and Scottish Creelers and Divers relevant to Orkney waters.	Specific contact will be made with the SCFF. Regular dialogue between the CFLO and the SCFF will be maintained prior to and during the installation work.
Unaffiliated commercial fishermen	CFLO	There are independent commercial fishing operators who are not affiliated with the RIFG.	Specific contact will be made with relevant unaffiliated commercial fishermen. The CFLO and FIR will identify these individuals and maintain liaison with them, particularly in relation to the requirement to remove creels to allow the works to be carried out.

Regional Stakeholder	SHEPD point of contact	Role	Details
The Crown Estate (TCE)	Wayleaves Project Manager	TCE manage property belonging to the Sovereign. Part of the HDD installation (seaward of MHWS) is located within Sovereign territory and, as such, SHEPD is required to obtain permission via survey licences and wayleave consent in terms of the Master Wayleave Agreement from TCE.	We will engage on matters related to the project as required.
United Kingdom Hydrographic Office (UKHO)	Project Manager and CFLO	The UKHO is the UK's agency providing hydrographic and geospatial data to mariners and maritime organisations across the world.	SHEPD will maintain contact with the UKHO to provide regular updates on progress of the works provide a copy of the marine licence and provide as-built details upon completion. The CFLO will maintain contact with the UKHO via NtMs or Hydrographic notes.
Kingfisher Information Service Offshore Renewables and Cable Awareness (KISORCA)	CFLO	Kingfishers work with all the offshore industries, including oil & gas, subsea cable, renewable energy and marine aggregates to provide the latest news and most accurate information to the fishing industry. Information is in relation to the latest hazards, planned developments, new structures being installed and zones created.	SHEPD will maintain contact with KISORCA to provide regular updates on progress of the works and provide as-built details upon completion. The CFLO will maintain contact with KISORCA via NtMs for the Kingfisher bulletin.

Regional Stakeholder	SHEPD point of contact	Role	Details
Ministry of Defence (MoD)	Project Manager and CFLO	The MoD is the British government department responsible for implementing the defence policy set by Her Majesty's Government and is the headquarters of the British Armed Forces. The MoD has access to training areas and ranges in marine areas.	SHEPD and CFLO will engage on matters related to the project as required
Royal Yacht Association (RYA) Scotland	CFLO	The RYA is the national governing body for certain water sports in the United Kingdom. Activities it covers include Sailing, Windsurfing, Motor cruising, Powerboating and Personal watercraft	Specific contact will be made with the RYA. Regular dialogue between the CFLO and the RYA will be maintained prior to and during the installation work that may affect recreational activities in the area.
Community Councils; Greamsay, Hoy and Walls; Orphir	Project Manager and CFLO	Community Councils are a voluntary organisation set up by statute by the Local Authority and run by local residents to act on behalf of its area.	CFLO will engage on matters related to the project as required.
NAFC Marine Centre	CFLO	The NAFC marine centre is an educational and scientific institute. Research and development in subjects relevant to the fishing and aquaculture industries and marine spatial planning.	We will engage on matters related to the project as required.
Orkney Marinas	CFLO	Orkney Marinas manages the marinas at Kirkwall, Stromness and Westray.	CFLO will engage on matters related to the project as required.

Regional Stakeholder	SHEPD point of contact	Role	Details
Orkney Harbour Master and Head of Marine Services	CFLO	The Harbour Master is an official responsible for enforcing the regulations of a particular harbour or port, in order to ensure the safety of navigation, the security of the harbour and the correct operation of the port facilities.	CFLO will engage on matters related to the project as required.

Table 4 Cable specific stakeholders

Cable specific stakeholder	SHEPD point of contact	Role	Details
Orkney Islands Council Harbour Authority	CFLO	The Orkney Islands Council Port Authority is the authority for Scapa Flow, harbours of Kirkwall and Stromness and Westray.	CFLO will engage on matters related to the project as required.
Orkney Islands Council Marine Services (Orkney Harbour Authority)	CFLO	The management of Orkney ports and harbours is centralised under Orkney Islands Council Marine Services.	Specific contact will be made with the Orkney Islands Council Marine Services. Regular dialogue between the CFLO and the SCFF will be maintained prior to and during the installation work. The ports and harbours given in section 8 will be considered for the distribution of information in reference to the proposed cable works[6].
Orkney Islands Council Planning Services	Project Manager and CFLO	Orkney Islands Council Development and Marine Planning Team cover a range of responsibilities associated with policy and project development for the use and development of land in Orkney.	SHEPD will engage on matters related to the project as required.

[6] Ports Handbook for Orkney (2015) Orkney Islands Council Marine Services, 6th edition.

Cable specific stakeholder	SHEPD point of contact	Role	Details
The Highland Council	Project Manager and CFLO	The highland Council is the local authority for mainland Scotland for the landfall of the Pentland cable.	Specific contact will be made with the Orkney Islands Council Marine Services.
Orkney Fisheries Association (OFA)	CFLO	OFA represents 51 vessel owners and 2 Shellfish processors. This association's membership covers vessels in the whitefish, prawn, scallop and creel sectors. The OFA are also affiliated to the SFF.	Specific contact will be made with the OFA. Regular dialogue between the CFLO and the OFA will be maintained prior to and during the installation work, noting that both mobile and static gear commercial fishing operations are present in the area.
Orkney Islands Sea Angling Association	CFLO	Orkney Islands Sea Angling Association, is a local group of anglers offering charter boats for sea angling across Orkney.	Contact will be made as required with the association who can be contacted through their website[7].
Orkney Fishermens Society (OFS)	CFLO	The OFS is a co-operative owned largely by inshore fishermen and is considered one of the foremost processors in brown crab in the UK. The co-operative is a key supporter of OFA.	Feedback from communications during the PAC events stated that the OFS was represented by the OFA. Specific contact will be made with the OFS if requested.
The European Marine Energy Centre Ltd (EMEC Ltd)	CFLO	EMEC Ltd has testing facilities for wave and tidal energy devices, 2 full scale and 2 small scale sites in Orkney[8].	Specific contact will be made with EMEC. Regular dialogue will be undertaken with EMEC throughout the lifetime of the local cable works to mitigate possible interactions.
Cooke Aquaculture	CFLO	Aquaculture is a growing and important food production industry to Scotland. Cooke Aquaculture Scotland has aquaculture farms in the vicinity of the cable corridors around Hoy.	Specific contact will be made with aquaculture developers through the provision of Notice to Mariners.

[7] http://www.orkneycommunities.co.uk/ANGLINGORKNEY/
[8] Available from: http://www.emec.org.uk/facilities/

Cable specific stakeholder	SHEPD point of contact	Role	Details
Orkney and Shetland Dive Charters – Lerwick	CFLO	Dive charter based in Lerwick.	CFLO will engage on matters related to the project as required.
Rysa Salmon Farm	CFLO	Fresh water Atlantic Salmon hatchery.	CFLO will engage on matters related to the project as required.
Cruise ships (operating from Kirkwall)	CFLO	Orkney is the most popular cruise location in the UK. The Orkney Islands Council has a timetable of cruise liner arrivals in 2019 available on their website: https://www.orkneyharbours.com/sectors/cruise-ships)	CFLO will engage on matters related to the project as required.
Diving – Scapa Scuba	CFLO	This is Orkney's dive centre. The area around Hoy is a very popular diving site. Scapa Flow is a popular dive site as illustrated in the SMRTS survey data, Scapa Flow is recognised as being in the top 5 dive sites in the world.	CFLO will engage on matters related to the project as required.
Orkney Sub-aqua	CFLO	Dive club operating on Orkney.	CFLO will engage on matters related to the project as required.
Caithness Diving Club	CFLO	This dive club dives across Scotland, in the nearshore waters. Dive sites include around Stromness.	CFLO will engage on matters related to the project as required.

Cable specific stakeholder	SHEPD point of contact	Role	Details
North Shore Surf Club (Caithness coast)	CFLO	This surf club operates along the Caithness coast (mainly out of Thurso). Surfing generally occurs along the west coast of Orkney and north facing coasts of the Caithness.	CFLO will engage on matters related to the project as required.
Scottish Surfing Federation (SSF)	CFLO	SSF is the recognised governing body for the sport if surfing with Scotland. It represents the interests of Scottish surfers and protects Scottish waves.	CFLO will engage on matters related to the project as required.
Orkney Sea Kayaking	CFLO	Orkney Sea Kayaking Association encourages safe sea kayaking around Orkney islands for paddles of all levels. It is affiliated to the Scottish Canoe Association (SCA).	CFLO will engage on matters related to the project as required.
Pentland Canoe Club	CFLO	A canoe club based in Thurso, on the North coast of Scotland. Members of the canoe club along much of the Caithness coastline.	CFLO will engage on matters related to the project as required.
Orkney Rowing Club	CFLO	They row traditional skiffs around Orkney and are members of the Scottish Coastal Rowing Association.	CFLO will engage on matters related to the project as required.
Stromness Sailing Club	CFLO	This is a sailing club based at the Ness Point End of Stromness harbour. They undertake dinghy and racing during the summer season.	CFLO will engage on matters related to the project as required.
Orkney Sailing Club	CFLO	The sailing club is based in Kirkwall on Orkney and sail around the Orkney islands and welcome visiting vessels on route from Shetland or Orkney.	CFLO will engage on matters related to the project as required.

Cable specific stakeholder	SHEPD point of contact	Role	Details
Orkney Yole Association	CFLO	A local sailing club sailing a small fleet of Yule sailing boats around Orkney.	CFLO will engage on matters related to the project as required.
Holm Sailing Club	CFLO	The sailing club is based in the village of St Marys. Points racing s held during summer in snipe dinghies.	CFLO will engage on matters related to the project as required.
Pentland Firth Yacht Club	CFLO	The club is located in Scrabster Harbour. The club sails in Thurso bay, between the two headland, Holburn Head and Dunnet Head.	CFLO will engage on matters related to the project as required.
Scrabster Harbour Trust	CFLO	The Trust which operate the busy fishing port of Scrabster. The harbour has a range of sectors which use this base from cargo, cruise, ferries, fishing, oil and gas marine renewables. It is also one of the UKs top whitefish and shellfish landing ports.	Specific contact will be made with Scrabster Harbour Trust.
Orkney Ferries	CFLO	Operate under dedicated inter island ferry services from Orkneys mainland to 13 island destination.	CFLO will engage on matters related to the project as required.
Scottish Sea Farms	CFLO	Farmed salmon producer with a number of farms in Orkney as well as the Shetland Islands and the west coast of mainland Scotland.	CFLO will engage on matters related to the project as required.

6 The purpose of the Fishing Liaison Mitigation Action Plan for Pentland East and Hoy submarine electricity cables

6.1 The Pentland Firth East Cable Replacement Project Description is a key reference for the FLMAP as the installation and protection designs will inform the potential interactions with sea users.

6.2 This plan describes how we will interact with sea users and the fishing industry prior to and during submarine electricity cable works. The aim is to facilitate co-existence between all parties as recommended in the FLOWW[9] and ESCA[10] (previously SCUK) guidelines**.** SHEPD has also developed the Marine Mitigation and Co-existence Planning document which should be used in conjunction with this FLMAP and can be found at *Appendix C How SHEPD co-exists with other Marine Users.*

6.3 The following topics are covered within the document:

- The responsibilities of the Company Fishing Liaison Officer (CFLO), and the Fishing Industry Representative (FIR), and how the FIR and CFLO will operate. The roles of the CFLO and FIR are detailed in *Appendix B Company Fishing Liaison Officer Specification*
- Overview of the fishing and sea user consultation
- Communication and liaison and engagement strategy
- Safety issues and mitigation strategies

6.4 The FLMAP will form an audit trail, documenting communication and liaison activities between SHEPD and sea users during specific cable works. As such, it will be developed and updated accordingly.

6.5 Some activities such as cable installations works require additional information which will inform the potential interactions with sea users. When required SHEPD will provide the Project Description and other necessary documents.

7 Commercial Fishing

7.1 This section summarises the existing commercial fishing baseline in relation to the submarine electricity cable assets. Commercial fishing activity is defined as the activity undertaken by licensed fishing vessels undertaken for the legitimate capture and sale of finfish and shellfish. The baseline evaluation will focus specifically on those fleets which are active in the vicinity of the cable corridors. The commercial fisheries charts are given in Appendix F Commercial Fisheries Charts from Figure 1 to Figure 14.

[9] Fishing Liaison with Offshore Wind and Wet Renewables Group (FLOWW) Best Practice Guidance for Offshore Renewables Developments: Recommendations for Fishing Liaison, 2014

[10] European Subsea Cables Association

7.2 Commercial fishing in European Union (EU) waters is subject to numerous controls and regulations at European, national and local levels. Such measures may have a direct impact on fishing effort, landings weights and values. Many of these measures are implemented at short notice with limited consultation, which limits confidence in predicting future trends. The main bodies regulating fishing in sea areas in which the cables are located are the EU through the Common Fisheries Policy (CFP), Marine Scotland (MS) and the Inshore Fisheries Management and Conservation (IFMAC) through national and regional regulations, and regional Inshore Fisheries Groups (rIFGs).

7.3 The Pentland East and Hoy cables are located within International Council for the Exploration of the Sea (ICES) rectangle 46E6. Pressure stocks are managed by ICES Division and quota is also allocated at this scale. Fishing data are recorded, collated and analysed by ICES rectangles within each division. ICES rectangles are the smallest spatial unit available for the collation of fishing data and have therefore been used to define the analysis areas for the proposed cable replacements. The cable to be replaced is located within ICES rectangles 46E6 between Pentland and Orkney (Hoy)[11]. The survey work for the Hoy cable is also located within this ICES rectangle.

7.4 The Pentland East and Hoy cables are sited within the 6nm limit, within which the UK has exclusive fishing rights. The territorial fishing limits of EU member states extend out to 12nm, within which only the vessels of a state or vessels from other states with historical rights are entitled to legally fish.

7.5 There is no single data source or recognised model for establishing a baseline of commercial fishing activity within discrete sea areas such as those encompassed by the footprint of submarine electricity cables. The overview has therefore been derived using data and information from a number of sources. In addition to analysis of fisheries statistical datasets, emphasis has been placed on undertaking direct consultation with the relevant national fishermen's federations, local associations and skippers whose fishing grounds are located within the vicinity of the cable corridor.

7.6 The key data sources used to characterise the baseline of the commercial fishing receptors are summarised in Table 5. It should be noted that Vessel Monitoring Systems (VMS) datasets show activity for the over-15m fleet only and will therefore underrepresent total fishing activity. It is considered that the surveillance sightings and effort data will be more representative as vessels working in the vicinity of the cable corridors will often be under 10m vessels.

Table 5 Commercial Fishing key data sources

Data	Year	Coverage	Confidence	Notes
UK Marine Management Organisation (MMO) Fishing Statistics (landings values and fishing effort data)	2013 to 2017	UK vessels landing into UK and European ports. Non-UK vessels landing into UK ports.	High	Landings data provided by value (£).

[11] As detailed in *Appendix F Commercial Fishing Charts*

Data	Year	Coverage	Confidence	Notes
UK MMO Surveillance Sightings	2012 to 2016	Sightings of vessels by gear type (all nationalities) recorded in UK waters on weekly surveillance fly overs during daylight hours.	Medium to high	May underestimate total extent of fishing activity due to flyover frequency and timing. Has not had a recent update.
UK MMO Satellite Tracking (VMS) Data	2013 to 2017	Aggregated VMS pings recorded in 0.05° by 0.05° grids from UK vessels only in European waters. Only vessels over 15m.	High	VMS provided by value (£) and effort (hours fished). As this dataset is limited to vessels over 15m this will not be indicative of the inshore fleet.
Marine Scotland National Marine Plan Interactive	2018	Productive – Maritime Transport (AIS data from fishing vessels) from 2012-2015	High	National Marine Plan interactive (NMPi) allows you to view different types of information and, where appropriate, links have been provided to the related parts of Scotland's Marine Atlas and will also be provided to the National Marine Plan in due course.

7.7 The potential fishing activity methods in the vicinity of the Pentland East cable and the Orkney to Hoy cable submarine electricity cables are reviewed in order to assess possible interaction scenarios (Figure 1 to Figure 14). A brief characterisation of the fishing methods identified in the area around the Hoy and Pentland East cable, with a description of the gear and photographic examples of the types of vessels is given in Table 6.

7.8 Surveillance sightings by method indicate that the three main methods are potters, unspecified trawlers and demersal trawlers. Higher surveillance sightings are seen around the Pentland East cable (Figure 1) than the Hoy cable. Surveillance sightings indicate that most of the vessels are UK registered vessels, with very limited observations of Dutch and German vessels (Figure 2). Figure 3 shows the average AIS tracks of fishing vessels with low activity (5-20 transits) in the vicinity of the Hoy cable and higher levels of activity (50-150 transits) across the Pentland East cable.

7.9 The average total landings value for ICES rectangle 46E6 is £3,988,702 (Figure 4). Approximately 50% of the landings values are generated from the potting fleet and around 25% are from bottom otter trawlers.

7.10 The three species comprising the majority of the landings values are crab, lobster and haddock. The remainder of the landings values is split between eight other fish species (Figure 5).

7.11 Around half of the fishing fleets targeting this area are 15m and over, with 10-15 meter vessels and the under 10m fleet comprising around 25% of the landings values each (Figure 6).

7.12 The highest average VMS effort is shown within the central portion of the Pentland East cable at 20-50 hours. The highest levels of average VMS effort is recorded west of this cable in the vicinity of Scrabster (at 50-100 hours). Low levels of VMS effort are recorded in the vicinity of the Hoy cable (less than 1 hour). It should be noted that as VMS data does not include vessels of under 15m in length, the data may not fully represent the fishing activity, particularly in the vicinity of the Hoy cable where smaller vessels comprise the majority of fishing effort (Figure 7).

7.13 Average VMS effort indicates moderate to high dredging effort to the west, and overlapping in a small area with the Pentland East cable (at 20-50 hours average over 5 years). There is no dredging activity recorded in the Hoy cable area (Figure 8).

7.14 The highest VMS effort for mobile gears is recorded at an average of 50-100 hours along the Pentland Firth coastline, and in the western part of ICES 46E6. There are lower levels of effort recorded around the Pentland East cable (a maximum of 20-50 hours) with very low levels (less than 1 hour) recorded on the Hoy cable (Figure 9).

7.15 The average VMS values for potting vessels recorded in the centre of the Pentland East cable is 25-50 hours with no VMS activity recorded over the Hoy cable. However, as mentioned above, as VMS data does not include vessels of under 15m in length, and potting vessels in the region are mostly under 15m in length, the data may not be fully representative of fishing activity and should be taken as indicative only (Figure 10).

7.16 The average VMS values for all fishing gears in ICES 46E6 is highest to the west of the cable (over £35,000). The highest VMS values around the Pentland East cable is £10,000 - £20,000 with comparably low values seen within the Hoy cable (between £1,000 and £3,000; Figure 11).

7.17 As shown in Figure 12, average VMS values for dredging activity is low, with the highest values recorded just west of the cable, around Scrabster (£10,000 - £20,000; Figure 12).

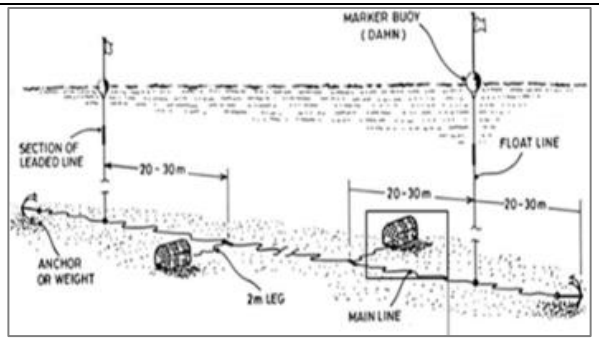
7.18 The average VMS values for mobile gears is reflective of average VMS effort with the highest values shown in the western part of ICES 46E6. Comparably lower average VMS values are shown over the Pentland East cable (£10,000 - £20,000) and low average VMS values are recorded across the Hoy cable (£1,000 - £3,000; Figure 13).

7.19 As shown in Figure 15, average VMS values for potting vessels is low on the Pentland East cable, at £6,000- £10,000 (Figure 14) with no VMS values recorded over the Hoy cable.

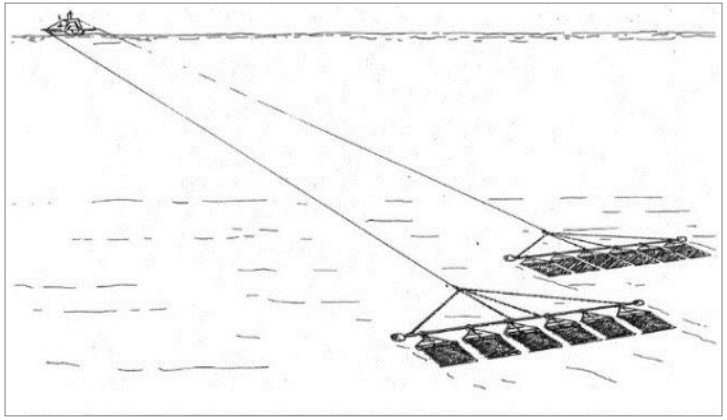
Table 6 Characterisation of the fishing methods in the area

Fishing gear	Description	Pictorial representation
Creeling (potting)	The largest Orkney fishery is the shellfish sector. Creels (pots) are static traps commonly baited with low value fish such as mackerel, herring, and dogfish. Creels are the principal method used to target active scavenging crustaceans such as brown crab, velvet crab, lobster, Nephrops, green crab and whelks. A number of pots are set on a main line anchored to the seabed and marked with a buoy or a 'dhan' (flag and buff) at either end. Approximately 107 vessels are registered with licenses in Orkney; 80 < 10m and 27 vessels >10 m, with around 80 vessels regularly active ([12]OSF, 2014). Vessels are predominantly under 12m but range from 6m single-handed day boats to 19m viviers. Approximately 39 vessels register Scrabster as their home port, made up exclusively of the under 10 metre fleet[13]. The vessels range from 4.6m to 9.3m in length, with almost all vessels operated under a shellfish licence. Crabs contribute the fourth highest landings values into Scrabster. The number of pots per string can vary from 5-50. Vessels generally work between 200-500 pots at sea, which are fished on a continuous cycle to	 Source: (above) Marine Traffic; Tommy Kirkpatrick

[12] Orkney Sustainable Fisheries Ltd (2014) Draft proposal for an Orkney Scallop Regulating Order. 124 pp
[13] https://www.gov.uk/government/statistical-data-sets/vessel-lists-10-metres-and-under

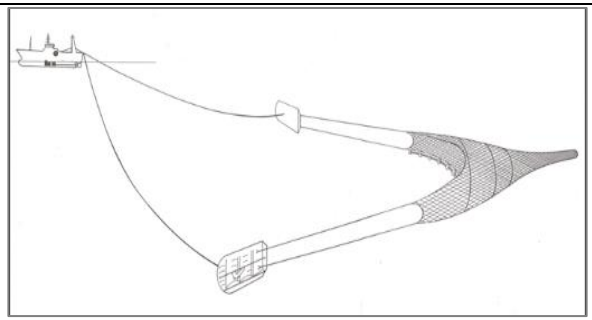
	maintain cover of the ground. Fishing effort follows a seasonal pattern with activity varying to shelter from adverse weather conditions, react to seasonal changes and exploit target species[14].	 Source: Galbraith & Rice, 2004  Source: BMM

[14] Coleman M T., & Rodrigues E. (2016) Orkney Shellfish Project End of Year Report: January – December 2015. Orkney Sustainable Fisheries Ltd. No.13, Pp 86

Scallop dredging	A small local fleet, and nomadic vessels (vessels that fish all around the UK, whose movements are influenced by season, management restrictions and spawning times) target scallops in Orkney waters, and potentially fish in the vicinity of submarine cables. There are approximately 4 dredge vessels based in Orkney. Each dredge consists of a ruggedly constructed triangular steel frame and a tooth bar, behind which a mat of linked steel rings is secured. Heavy netting is laced into the frame to form a bag into which the catch is retained. As scallops usually lie recessed in sand and fine gravel, they are raked out by the teeth and swept into the bag. A number of dredges are attached to a bar fitted with bridles and is towed using a single warp. The dredges are usually deployed from outrigger booms. The number of dredges deployed varies with the size of the vessel, with the maximum number permitted being eight aside (16 in total).	 Source: BMM  Source: Galbraith & Rice, 2004

Hand diving for scallops	A significant fishery for king scallops, *Pecten maximus*, in Orkney waters is hand collection by divers. The local fleet comprises approximately 14 dive vessels. Divers typically target areas at a relatively small spatial scale (tens of m^2).	 Source: Orkney Sustainable Fisheries Ltd[15]
Demersal otter trawling	The trawling conducted by local vessels in the Orkney area is for whitefish (cod, haddock, whiting, monkfish, megrim, plaice and squid). Currently only three whitefish vessels are registered. The highest landings into Scrabster are from the demersal fleet. The top 3 landings (by value) are hake, monkfish and haddock. Otter trawl nets are funnel shaped tapering towards the cod-end, with the sides of the net extended to form wings which herd the fish into the net. The net is held open by trawl doors which are designed to flow through the water at an angle causing them to spread away from each other and therefore opening the net horizontally. The net is held open vertically by the ballooning effect of the net and by a series of floats	 Source: Marine Traffic

[15] Orkney Sustainable Fisheries Ltd (2014) Draft proposal for an Orkney Scallop Regulating Order. 124 pp.

	attached to the headline. The ground lines of nets are weighted to maintain contact with the seabed and can vary in design depending on the type of ground fished.	 Source: Galbraith & Rice, 2004

8 Other Sea Users

8.1 This section of the report provides a brief overview of other sea users in relation to the submarine electricity cable assets. Other sea users that may be affected by cable works include:

- Aquaculture
- Marine Archaeology
- Wave and Tidal developments
- Ferries
- Shipping
- Sailing
- Recreational: Canoeing and kayaking, coasteering, motor cruising, jet skis, power boating, rowing and sculling, sailing and cruising, scuba diving, sea angling from charter boat, sea angling from shore, sailing and paddle boarding
- Ministry of Defence
- Conservation sites/areas
- Telecommunications

8.2 There is no single data source or recognised model for determining the activity of all other legitimate sea users within discrete sea areas such as those encompassed by the footprint of sub-sea cables. It is beyond the scope of this report to produce a complete baseline overview for all other legitimate sea users therefore data and information are derived from assessments utilised by regional marine spatial plans and the PAC report.

8.3 AIS vessel density data for all vessels in 2017 has been published by EMODnet, showing hours of activity per km² per month (Figure 16). The highest concentration of activity within the Pentland East cable corridor is around 7 hours per km² per month in the central portion of the route, with lower levels of activity elsewhere along the route. This data has been further separated into the categories of fishing vessels, cargo vessels, high speed vessels, passenger vessels, sailing vessels, tankers and tugs, shown in Figure 17 to Figure 23.

8.4 The Scottish Marine Recreation and Tourism Survey (SMRTS) 2015[16] and the Marine Scotland interactive Marine Plan[17] have been the main sources of reference for legitimate sea users listed in Table 7. Where information is available, charts of spatial activity are provided for each of the legitimate sea users defined above.

Table 7 Other legitimate sea users data sources

Data	Year	Coverage	Confidence	Notes
Marine Scotland National Marine	Varied	Overall Assessment Physical Characteristics	Low - High	National Marine Plan interactive (NMPi)

[16] http://www.gov.scot/Resource/0049/00497904.pdf Scottish Marine Recreation and Tourism Survey (SMRTS) 2015

[17] Marine Scotland National Marine Plan Interactive; https://marinescotland.atkinsgeospatial.com/nmpi/

Data	Year	Coverage	Confidence	Notes
Plan Interactive		Clean and Safe Healthy and Biologically Diverse Productive Climate Change Administrative Regions National Marine Plan Aerial Photography Base Layers		allows you to view different types of information and, where appropriate, links have been provided to the related parts of Scotland's Marine Atlas and will also be provided to the National Marine Plan in due course.
Scottish Marine Recreation and Tourism Survey (SMRTS) 2015	2015	SMRTS survey was carried out between August and October 2015. The survey provides baseline information to inform marine planning in Scotland. More than 2100 individuals, 137 clubs and 279 businesses completed the survey, indicating areas where people conducted different activities.	Low - High (dependent on sample size of consulted parties)	Commissioned by the Scottish Government, the Firth of Clyde Forum, The Crown Estate and Scottish Coastal Forum. Aim to gather robust information on marine recreation and tourism activity around Scotland.
Scottish Government SpatialData.gov.scot	2018	National Scenic Areas (NSAs) are Scotland's only national landscape designation, and defined as areas "of outstanding scenic value in a national context" for which special protection measures are required. NSAs are broadly equivalent to the Areas of Outstanding Natural Beauty found in England, Wales and Northern Ireland. There are 40 NSAs in total covering roughly 1 million hectares (13% of Scotland).	High	The designation's purpose is both to identify our finest scenery and to ensure its protection from inappropriate development.
Royal Society for the Protection of Birds (RSPB)	2019	All RSPB reserve boundaries.	High	The dataset contains the boundaries of all land managed, leased or owned as part of publically accessible RSPB reserves.

Data	Year	Coverage	Confidence	Notes
European Marine Observation and Data Network (EMODnet)	2017	The maps are based on AIS data purchased by CLS and show shipping density in 1km*1km cells of a grid covering all EU waters (and some neighbouring areas). Density is expressed as hours per square kilometre per month. The following ship types have been covered in this dataset: other, fishing, service, dredging or underwater ops, sailing, pleasure craft, high speed craft, tug and towing, passenger, cargo, tanker, military and law enforcement, unknown and all ship types.	Low - High	EMODnet Vessel Density Map were created by Cogea in 2019 in the framework of EMODnet Human Activities, an initiative funded by the EU Commission.

8.5 The main water sports undertaken around the Pentland East and Hoy cables are motor cruising, power boating, sailing and cruising, surfing, paddle boarding, diving, private charter fishing, canoeing and kayaking. A heat map using the data collated from the Scottish Marine Recreation and Tourism Survey (SMRTS) is used to summarise all recreational activity around the Orkney Islands. The recreational activities recorded in the vicinity of the submarine electricity cable assets are:

- Canoeing and kayaking
- Climbing and coasteering
- Dinghy Racing
- Motor cruising
- Water-skiing and wakeboarding
- Power boating
- Rowing and sculling
- Sailing and cruising
- Scuba diving
- Sea angling from a charter boat
- Sea angling from shore
- Surfing and paddle boarding

8.6 Recreational activity has been assessed using regional datasets as there is little information on discrete sea areas such as those encompassed by the footprint of the Pentland East and Hoy cables (Figure 15).

8.7 The charts showing recreational activity are given in Appendix G (Figure 24 to Figure 46).

8.8 In relation to recreational canoeing in Scotland a total of 237 people provided spatial information on canoeing and kayaking for the SMRTS 2015 survey, with a total of 418 people providing spatial data. From that data a heat map was produced highlighting areas where

canoeing activity occurs around Orkney. There are low levels of activity seen around landfall at Pentland East and across the Hoy cable. There are some localised specific clubs including Orkney Sea Kayaking Association and the Pentland Canoe Club. The summary of canoeing activity in the vicinity of the cable corridors for the two cables are summarised in Table 8 and shown in Figure 24.

Table 8 Canoeing and Kayaking

Cable	Interaction on chart	Notes
Pentland East	Yes	Low – medium levels of canoeing and kayaking activity along the Pentland coast
Hoy	Yes	Low levels of canoeing and kayaking activity around Hoy

8.9 For climbing, bouldering and coasteering , 230 people in the SMRTS 2015 survey provided spatial information, representing approximately 10% of the sample. An additional 9 clubs provided spatial information on this activity. A small number of coasteering hotspots were identified along the Pentland coast. The presence of coasteering activity in the vicinity of the Orkney cable corridors is summarised in Table 9 and shown in Figure 25.

Table 9 Climbing, bouldering and coasteering

Cable	Interaction on chart	Notes
Pentland East	Yes	Small hotspot of coasteering activity along Pentland coast near landfall of the Pentland – Hoy cable
Hoy	No	

8.10 For dinghy racing 88 people provided spatial information to SMRTS, with an additional 19 clubs provided spatial information on this activity. The charts indicate that these is only a small isolated area of dinghy racing identified to south west of the Pentland cable corridor in Thurso Bay. The potential interaction is summarised in Table 10 and shown in Figure 26.

Table 10 Dinghy Racing

Cable	Interaction on chart	Notes
Pentland East	Possible	Small amount of racing activity in Thurso Bay
Hoy	No	

8.11 For motor cruising around Scotland, 7% of 418 participants in the SMRTS 2015 survey provided spatial data. In total 325 motor cruising routes across Scotland were identified. The presence of motor cruising activity is given in Table 11 and shown in Figure 27, both cable corridors indicate a medium level of motor cruising activity.

Table 11 Motor cruising

Cable	Interaction on chart	Notes
Pentland East	Yes	Medium motor cruising activity seen around Hoy and through the Pentland- Hoy cable corridor.
Hoy	Yes	Medium levels of activity seen within the centre of the cable corridor

8.12 Amongst jet ski users no activity was reported around Hoy, but there was activity recorded to Thurso Bay to the west of the Pentland cable corridor. The presence of personal water craftactivity is summarised in Table 12 and shown in Figure 28.

Table 12 Personal water craft (jet skis)

Cable	Interaction on chart	Notes
Pentland East	Yes	Small area of low level activity in Thurso Bay, west of the Pentland – Hoy cable corridor.
Hoy	No	

8.13 There are low levels of power boating recorded in the area of the cable corridors in the SMRTS survey. The level of activity is summarised in Table 13 and shown in Figure 29.

Table 13 Power boating activity

Cable	Interaction on chart	Notes
Pentland East	Yes	Small amount of activity around landfall (mainland Scotland)
Hoy	No	

8.14 There is a small coastal rowing community on Orkney but no levels of activity seen within the cable corridors. Low levels of rowing activity are seen in Dunnet Bay and Thurso Bay along the Caithness coast. The levels of rowing and sculling activity are summarised in Table 14 and shown in Figure 30.

Table 14 Rowing and sailing

Cable	Interaction on chart	Notes
Pentland East	Yes	Low levels of activity around landfall (mainland Scotland) in Dunnet Bay and Thurso Bay.
Hoy	No	

8.15 Sailing is a popular activity around Pentland East and Hoy. There are several sailing clubs operating in the area. These include Stromness Sailing Club, Orkney Sailing Club, Orkney Yole Association, Holm Sailing Club and Pentland Firth Yacht Club. A timetable of the sailing regattas planned for the cable corridors can be found online. The potential interaction with sailing is summarised in Table 15 and shown in Figure 31.

Table 15 Sailing and cruising

Cable	Interaction on chart	Notes
Pentland East	Yes	Low levels of sailing activity seen across the corridor
Hoy	Yes	Low to medium levels of activity across the cable corridor

8.16 Scapa Flow (near Hoy) is in the top 5 diving destinations in the world. As a result, the activity levels seen across the Hoy cable corridor are very high. Orkney's Dive Centre is located at Scapa Flow. There are also dive sites near the Stromness to Orkney Ferry line. In addition to the high levels of diving activity around Scapa Flow and Hoy there is also hotspots of activity along the Pentland coast, one near the landfall of the Pentland to Hoy cable corridor. There are two local scuba diving clubs; Orkney Sub Aqua and Caithness Diving Club. Scuba diving activity is summarised in Table 16 and shown in Figure 32.

Table 16 Scuba diving

Cable	Interaction on chart	Notes
Pentland East	Yes	Hotspot around mainland landfall l- Dunnet Bay
Hoy	Yes	Very high levels of scuba diving activity around Orkney including the northern coast of Hoy.

8.17 There are low levels of sea angling from a charter boat around the Pentland coast. Low levels are seen across part of the cable corridor towards the Pentland coast. The activity is summarised in Table 17 and shown in Figure 33.

Table 17 Sea angling from a charter boat

Cable	Interaction on chart	Notes
Pentland East	Yes	Small section of low level activity across this cable corridor
Hoy	No	

8.18 Around the Pentland coast there is some sea angling undertaken from shore. This activity is not reported around Hoy in the SMRTS survey but is seen around the landfall of the Pentland – Hoy cable corridor. The potential for interaction is summarised in Table 18 and shown in Figure 34.

Table 18 Sea angling from the shore

Cable	Interaction on chart	Notes
Pentland East	Possible	Low – medium levels of activity around mainland Scotland landfall
Hoy	No	

8.19 Surfing is a popular activity in the Pentland Firth area and has hosted the National Surfing Championships (near Thurso). There is a surf School (the North Shore Surf Club) operating along the Caithness coast (mainly out of Thurso). Surfing is generally located along the west coast of Orkney and the north facing coasts of mainland Scotland. Surfing and paddle boarding activity is summarised in Table 19 and shown in Figure 35.

Table 19 Surfing and paddle boarding

Cable	Interaction on chart	Notes
Pentland East	Yes	High levels of activity around mainland Scotland landfall.
Hoy	Yes	Low levels of surfing activity seen around Hoy.

8.20 The nature conservation designations in the vicinity of the cable corridors are shown in Figure 36, Figure 37 and Figure 38 and summarised in Table 20. The Hoy and West Mainland National Scenic Area (NSA) covers all of the Hoy cable and the landfall portion of the Pentland-Hoy cable and has been desginated for its exceptional scenery. There is an RSPB reserve on Hoy which is also a Site of Scientific Interest (SSSI), a Special Protection area (SPA) and a Special Area for Conservation (SAC). On mainland Scotland there is also an SPA (North Caithness Cliffs designated for its breeding birds and six pairs of Peregrine falcons) within the nearshore section of the Pentland-Hoy cable corridor.

Table 20 Conservation designations

Cable	Interaction on chart	Notes
Pentland East	Yes	SPA designation – North Caithness Cliffs around Pentland landfall. Hoy and West Mainland NSA – around landfall at Hoy end of cable corridor.
Hoy	Yes	Hoy and West Mainland NSA – across entirety of cable corridor. RSPB reserve on Hoy. Hoy also has a designated SPA and extending across half of the Hoy cable corridor.

8.21 To the west of the Hoy cable corridor (offshore from Outertown) is a wave test site facility run by the European Marine Energy Centre (EMEC). The aim of the centre is to reduce the time, cost

and risk associated with the development of marine energy technologies. It is the only centre of its kind in the world to provide both wave and tidal energy converters and purpose built sea testing facilities. There are no wave or tidal sites near the Pentland East cable corridor. A summary of the potential interaction is summarised in Table 21 and shown in Figure 39.

Table 21 Wave and Tidal

Cable	Interaction on chart	Notes
Pentland East	No	
Hoy	Possible	EMEC Tidal testing site to the north of the Hoy cable corridor

8.22 There are no recorded aquaculture farms in the vicinity of the Pentland East cable but there are active finfish sites around Hoy. The following sites are within 10 km of the cables: Bring Head, Chalmers Hope, Lyrawa Bay, Pegal bay, South Cava and Rysa Incubation Unit, which farm Atlantic salmon (finfish). There is also one shellfish aquaculture farm; Head of Banks, Orphir, operated by Sinclair Mussels farming common mussels. The potential interaction is summarised in Table 22 and shown in Figure 40.

Table 22 Aquaculture

Cable	Interaction on chart	Notes
Pentland East	No	
Hoy	Yes	There are mainly finfish aquaculture farms around the Hoy coastline, with one shellfish site near the Hoy cable corridor.

8.23 There are potential wreck sites within the cable corridor as indicated in Figure 41 and summarised in Table 23. An online database of historical wreck sites, Canmore, has been used to assess the potential for interaction between wreck sites and submarine electricity cables. It includes a record of Scotland's maritime heritage and any current or scheduled archaeological sites of national importance, legally protected under the Ancient Monuments and Archaeological Areas Act 1979. This database has been compiled and managed by Historic Environment Scotland, and is available as part of Marine Scotland's NMPi.

Table 23 Marine archaeology

Cable	Interaction on chart	Notes
Pentland East	Possible	Possible interaction with wreck sites
Hoy	Possible	Possible interaction with wreck sites

8.24 West of the Pentland East cable (located on the Pentland coastline) is Scrabster, a popular and long running fishing port. Whitefish, brown crab, lobster, prawn and scallops are landed into

this port. Over 1,000 fishing boats use this port annually, as it is the northernmost mainland port in Scotland. Scrabster Harbour also has a 2,000-fish box market. Scrabster is an independent trust port overseen by the Scrabster Harbour Trust and governed by its own legislation. Cruise liners also access this port.

8.25 The harbours and ports on Hoy are as follows; Moaness, Houton and Lyness. Two ferry routes operate from Moaness, one to Stromness and one to the Isle of Graemsay. The Stromness to Scrabster ferry route lies within the western edge of the Pentland cable corridor. A summary of vessel movements (by AIS) is summarised in Table 24 and Table 25 and shown in Figure 42 (all vessels), cargo vessels (Figure 43), port service craft (Figure 44), tankers (Figure 45) and passenger vessels (Figure 46).

Table 24 Local Ports

Cable	Interaction on chart	Notes
Pentland East	Possible	Scrabster Port is located to the west of the landfall of the Pentland cable corridor.
Hoy	No	

8.26 The ferry activity is shown in Figure 46 and summarised in Table 25.

Table 25 Ferry routes

Cable	Interaction on chart	Notes
Pentland East	Yes	The Stromness to Scrabster ferry route lies within the western edge of the Pentland cable corridor.
Hoy	Possible	Ferry routes either side of the cable corridor, two out of Moaness and one Hoy to Lyness.

8.27 A summary of the potential interactions between the Pentland East and Hoy cables and other legitimate sea users is given in Table 26.

8.28 The key points of contact for these legitimate sea users are identified in Appendix E: *Communication Strategy*.

Table 26 Summary of other legitimate sea users interactions

Activity		Interaction on chart	Notes
Recreational	Canoeing/kayaking	Yes	Low – medium levels of canoeing and kayaking along the coast and in both cable corridors
	Coasteering	Yes	Small hotspot of coasteering activity along Pentland coast

Activity		Interaction on chart	Notes
	Dinghy racing	Possible	Small amount of dinghy racing in Thurso Bay
	Motor cruising	Yes	Medium level of activity in both cable corridors
	Personal water craft (jet ski)	Yes	Small amount of low level activity in Thurso Bay, west of the Pentland – Hoy cable corridor.
	Power boating	Yes	Low levels of activity around landfall (mainland Scotland) – Pentland – Hoy.
	Rowing and sculling	Yes	Low levels of activity around landfall (mainland Scotland) – Pentland Hoy- Dunnet Bay and Thurso Bay.
	Sailing and cruising	Yes	Low to medium levels of activity with the cable corridors
	Scuba diving	Yes	High levels of scuba diving activity near Scapa flow (Hoy cable corridor) and hotspot in Dunnet Bay.
	Sea angling from charter boat	Yes	Low level of activity in the Pentland – Hoy cable corridor
	Sea angling from shore	Yes	Sea angling hotspots are seen along the Pentland coast, some activity is seen in the nearshore section of the Pentland cable corridor.
	Surfing, paddle boarding	Yes	There are high levels of surfing along the Pentland coast in the nearshore area. Medium activity between mainland and Hoy and low levels around Hoy.
Conservation sites		Yes	There are SPA designations (with marine components) within both cable corridors. There are also National Scenic Areas around Hoy and a RSPB Nature reserve.
Wave/Tidal		Possible	EMEC tidal site is located west of Hoy and the cable corridor.
Aquaculture (finfish and shellfish)		Yes	There are a range of Atlantic Salmon farms (finfish) around Hoy and one common mussel farm.
Marine Archaeology		Possible	Possible interaction of wreck sites in the cable corridors. Low number of wrecks are located within the cable corridors.
Shipping		Yes	AIS indicates that there are low levels of cargo vessel transits around Hoy. There is a higher degree of activity (50-150 transits) across the Pentland corridor.
Ferries		Yes	There are ferry routes which intersect the Pentland cable corridor and are present either side of the Hoy cable corridor.

9 Cable Interactions: Commercial Fishing

9.1 Potting is shown to have the highest levels of activity around Orkney. This is also likely to be under represented as much of the creeling (potting) is conducted by vessels under the length of 10 m. Working nearshore between the islands creeling (potting) is most likely be the primary source of interactions during any cable works around Hoy.

9.2 While fishermen will be kept up to date with construction areas by Notices to Mariners (NTMs), Weekly Notices of Operations (WNO) and update emails from the developer and their subcontractors, there is scope for conflicting demands on the same area of sea. Construction schedules are fluid and dependent upon many factors and fishermen may not regularly read emails, if they have access to the internet at all and therefore may not be aware of recent updates.

9.3 In most cases the presence of a FIR on board the survey boats should prevent fishing gear interactions by survey/construction vessels. However, it may not be feasible for all vessels to have an offshore fisheries liaison officer on board, therefore a standard operating procedure (SOP) has been created for the FIR and crew of the survey and construction vessels to follow (Fishing Gear Interaction SOP), given in *Appendix A Standard Operating Procedures*.

9.4 The potential interactions between fishing stakeholders and survey vessels are dependent on the survey and installation methods to be used. Inspections were carried out on SHEPD's submarine electricity cables as part of the 2017/2018 programme of works. Routine inspections identified that the Pentland East cable is coming to the end of its operational life and needs replacing. More recently, two faults have occurred on the cable requiring emergency repairs.

9.5 SHEPD now proposes to install a replacement 33kV subsea electric power cable across the Pentland Firth, landing at Murkle Bay on the Scottish Mainland and Rackwick Bay on the island of Hoy and is applying to Marine Scotland for a licence to carry out these works. The Pentland FIreth East Cable Replacement Project Description outlines the worst case scenario for the proposed cable installation works.

9.6 The potential interactions to fishing stakeholders, based on the cable specific proposed construction methods, are given in Table 27 and specified in the Cefas and MCEU (2004)[18] guidelines. It should be noted that fishing stakeholders will vary in their sensitivity to socio-economic pressures depending on:

- Spatial adaptability based on operational range and
- Spatial tolerance based on dependency on fishing grounds

[18] Cefas, Marine Consents and Environment Unit (MCEU), Department for Environment, Food and Rural Affairs (DEFRA) and Department of Trade and Industry (DTI) (2004) Offshore Wind Farms - Guidance note for Environmental Impact Assessment In respect of FEPA and CPA requirements, Version 2

Table 27 Summary of potential impacts to fishery stakeholders around Hoy and Pentland East cables

Category	Type	Detail of impact	Cost Benefit Analysis Model Impact Number
Health and safety impacts	Snagging risk	Anchor mounds from proposed anchor mooring systems	1
	Snagging risk	Presence of obstacles on the seabed post-construction	1
	Access to shelter	Reduced access to shelter in adverse weather conditions	New[19]
Socio-economic impacts	Collision risk	Increased collision risk at sea during cable installation	3
	Loss of earnings	Loss of access to fishing grounds during surveys and cable installation	7
	Additional costs	Obstruction of navigation routes resulting in increased steaming distances/times during cable installation	7
	Additional costs	Increased fuel consumption due to increased steaming times/distances during cable installation	7
	Loss of earnings	Increased competition for commercially exploited fish and shellfish due to displacement of vessels into other fishing grounds during cable installation	7
	Loss of earnings	Interference to normal fishing activities during maintenance	7
Environmental impacts	Loss of earnings	Adverse impacts on commercially exploited fish and shellfish populations	New[20]

10 Cable Asset Interactions: Other Legitimate Sea Users

10.1 Potential interactions between survey and construction vessels and other legitimate sea users are given in Table 28. It should be noted that commercial fishing stakeholders will vary in their sensitivity to socio-economic pressures depending on:

- Spatial adaptability based on operational range and
- Spatial tolerance based on dependency on cable area

10.2 Due to the range in levels of activity for all other legitimate sea users there is scope for conflicting demands on the same area of sea. It is anticipated that the formal notifications such

[19] This impact is not included in the current Cost Benefit Analysis Methodology. We will carry out a literature review to see if there is a quantifiable link between submarine electricity cable and this impact.
[20] This impact is not included in the current Cost Benefit Analysis Methodology. We will carry out a literature review to see if there is a quantifiable link between submarine electricity cable and this impact.

as NtMs, COLREGS and the code of good practise for all vessels will provide sufficient mitigation for potential interactions.

Table 28 Summary of potential impacts to other sea user stakeholders

Category	Type	Detail of impact	Cost Benefit Analysis Model Impact Number
Health and safety impacts	Access to shelter	Reduced access to shelter in adverse weather conditions	New[21]
Socio-economic impacts	Collision risk	Increased collision risk at sea during cable installation	3
	Loss of earnings	Loss of access to sea areas during surveys and cable installation during cable installation e.g. ferries/sailing/scuba diving/kayaking	New[22]
	Additional costs	Obstruction of navigation routes resulting in increased steaming distances/times and fuel consumption	New[23]
	Loss of earnings	Interference to normal sea user activities during maintenance e.g. aquaculture sites	New[24]

11 Safety

11.1 Safety management is a key aspect of the FLMAP. With regards to commercial fishing, the Safety Management Plan for submarine cable replacement will include the following elements that mitigate the identified risks:

- Code of Good Practice for all Vessels
- Procedures in Relation to Gear Fastening or Loss
- Safety Zones (500m) Around Active Construction Areas
- *Appendix E: Communication programme*

11.2 When we employ contractors for the surveys and construction required for the Hoy and Pentland East cable works, they will outline certain obligations to which the contractors must

[21] This impact is not included in the current Cost Benefit Analysis Methodology. We will carry out a literature review to see if there is a quantifiable link between submarine electricity cable and this impact.
[22] This impact is not included in the current Cost Benefit Analysis Methodology. We will carry out a literature review to see if there is a quantifiable link between submarine electricity cable and this impact.
[23] This impact is not included in the current Cost Benefit Analysis Methodology. We will carry out a literature review to see if there is a quantifiable link between submarine electricity cable and this impact.
[24] This impact is not included in the current Cost Benefit Analysis Methodology. We will carry out a literature review to see if there is a quantifiable link between submarine electricity cable and this impact.

follow in order to ensure external communication is accurate and to aid coexistence with legitimate sea users. These may include ensuring:

- Any debris accidently dropped during construction and maintenance activities is removed if practicably feasible and safe to do so
- All vessels under contract with us adhere to COLREGS and SOLAS requirements
- All vessels under contract with us do not engage in any commercial or recreational fishing activities whatsoever
- All vessels under contract with us will maintain polite, proactive and professional communications with fishing vessels and other legitimate sea users during offshore operations
- All vessels under contract with us will monitor the required VHF channels at all times so as to receive communications directly from fishing vessels and other legitimate sea users
- All vessels contracted to undertake project specific work will have undertaken appropriate risk assessments in respect of potential interactions with commercial fishing vessels and their gears
- Where appropriate, for vessels using anchored positioning, contractors will be obliged wherever possible to adopt anchor release procedures to minimise the size of anchor mounds and where necessary undertake remedial actions to level any significant anchor mounds
- All vessels contracted with us will have on board approved fishing liaison/interaction manuals
- Where appropriate, suitably qualified and certified offshore FIRs will be on board certain project vessels
- Standard transit routes for vessels engaged by us will be discussed with fishing stakeholders prior to operations commencing and vessels transiting to the site shall follow these where possible.

11.3 The following procedure outlined below replicates that which has been in place in respect of the UK offshore oil and gas industry and describes the steps that should be undertaken in the event of fishing gear becoming fastened on or in the vicinity of a submarine electricity cable:

- If the fastened gear is not easily retrieved, fishermen should not apply excessive winch, line or net hauler loads or engine powers in attempts to retrieve fastened gear
- Fishermen are to advise the coastguard and the CFLO/FIR immediately, giving an accurate position of the vessel and/or lost gear
- If the coastguard or CFLO/FIR confirms that the vessel is in the immediate vicinity of a cable, serious consideration will be given to the slipping of the gear and buoying and recording of its position;
- If the gear is slipped, after buoying off the gear, the position should be confirmed with the coastguard and the CFLO/FIR
- On return to port, the skipper is to contact the local Fishery Office and register the incident in the normal manner
- On no account should skippers grapple in an attempt to recover fishing gear lost or cut away in the vicinity of a submarine electricity cable.

11.4 The purpose of a safety zone is to ensure the safety of other legitimate sea users by communicating a safe distance between other users and the construction, operation and maintenance activities related to the submarine electricity cables.

11.5 Whilst 500m is the maximum permissible size (either side of the cable) for a safety zone, it could be that during the construction phase, the safety of other users is better served through an additional precautionary area communicated by Notice to Mariners in which it is recommended other legitimate sea users do not enter. If entry is unavoidable, then navigation with extreme caution is advised.

11.6 We will aim to organise construction schedules as far as is practicably possible with the aim of reducing potential combined loss of fishing area during the construction phase.

11.7 Fishing stakeholders will be informed of all works throughout pre construction, construction and operational phases.

11.8 SHEPD will, in consultation with commercial fishing stakeholders, work towards identifying acceptable and feasible mitigation options with the aim of minimising any potential effects on commercial fishing associated with the replacement of submarine electricity cables. There are various options available to mitigate the risks describe previously, including:

- Continuing effective positive liaison with commercial fishing stakeholders through the pre-construction, construction and operational phases of the cable replacement
- Continued employment of CFLO/FIR services until the completion of the replacement works
- Ensuring contractors comply with the contractor's obligations outlined above so as to minimise any interference to commercial fishing activities
- Managing the cable replacement works so as to minimise any potential effects on the marine environment, habitats and commercial fishing
- Raising awareness of the danger of fishing in the vicinity of submarine cables
- Adopting a hierarchical approach to submarine cable protection, taking account of legitimate sea users concerns
- Organising a construction phasing workshop to inform commercial fishermen of planned activities
- Organising construction schedules as far as is practicably possible in order to reduce the combined loss of fishing area associated with safety zones during the surveys and construction phase of the submarine cable replacement
- Distributing weekly notice of operations
- Providing information in plotter format to enable fishermen to easily interpret the information
- Scouting surveys to identify potting areas and any other relevant static gear areas.

12 UK Legislation, References and Guidance

12.1 Damage to submarine cables is expensive to repair and can cause disruption to power distribution to often sparsely populated islands. There is applicable legislation in respect to safety zones (Energy Act 2004), navigation (International Regulations for Preventing Collisions at Sea 1972; COLREGS) and submarine cable protection (United Nations Convention on the Law of the Sea (UNCLOS) Article 113, 1982, and UK 1964 Continental Shelf Act)). It is an offence to wilfully damage submarine cables (UNCLOS, 1982; UK 1964 Continental Shelf Act).

12.2 The legal implication of damaging a submarine cable is summarised in the International Cable Protection Committee (IPCC) booklet "Fishing and submarine cables" (2009):

"Under UNCLOS and the earlier 1884 International Convention for the Protection of Submarine Cables, if a mariner damages a cable and the damage could be avoided by taking reasonable care as a prudent seaman, then the person causing the damage is liable. If a mariner damages a cable with fishing gear or an anchor, when he could have seen that cable on a chart and avoided it, he may be liable for the damage. In addition to civil liability for damages, the mariner may face criminal sanctions for culpable negligence or wilful injury to a cable.

However, international law recognises an exception. If the mariner's damage to the cable is caused by taking necessary actions to save the vessel or crew, there is no liability. An example would be a ship without power being set upon a shoal that is saved by anchoring and in the process a cable is damaged.

International law also requires that a vessel that has gear or an anchor caught on a cable is required to sacrifice the gear or anchor to avoid injury to the cable. Provided the mariner was not negligent in contacting the cable in the first place, the mariner is entitled to indemnity for the cost of the sacrificed gear or anchor by the owners of the cable ".

12.3 In regards to navigation, in normal circumstances, the provisions laid down by COLREGs are sufficient to ensure that actions taken by fishing vessels and those restricted in their ability to manoeuvre when two vessels are approaching allow both to continue operating with minimum disruption.

12.4 There is no legal obligation on a SHEPD to pay co-operation payments to fishermen in respect to offshore works.

Appendix A Standard Operating Procedures

Scottish & Southern Electricity Networks

Standard Operating Procedures for Scottish Hyrdo Electric Power Distribution Projects

Contents

1. Background

1.1 Fifty-nine Scottish Islands are currently connected to the electricity network that serves Great Britain by the Scottish Hydro Electric Power Distribution plc[1] network. They are connected by submarine electricity cables which supply electricity to homes and businesses on the islands.

1.2 The cost of maintaining the electricity distribution network involves investment from us. The cost of supplying electricity to the Scottish islands is supported by Scottish Hydro Electric Power Distribution electricity customers. The cost of operating our network is included in the bill from their electricity supplier.

1.3 In the past few years, Scottish Hydro Electric Transmission plc[2] has been developing strategic submarine electricity links to allow the bulk transfer of electricity generated on the islands to the electricity network that serves Great Britain. The cost of this development is socialised across all electricity customers in Great Britain and the businesses who generate electricity and wish to connect to the electricity grid of Great Britain.

1.4 This document applies to only to Scottish Hydro Electric Power Distribution.

2. Introduction

2.1 Our key aim is to co-exist with other legitimate sea users in the marine environment.

2.2 We secure any consent identified as necessary to install, maintain and operate submarine electricity cable infrastructure in the marine environment and we plan our work to seek to minimise unnecessary interference with other legitimate sea users as far as practicable.

2.3 We achieve this by actively engaging with legitimate sea users and those with consented development rights. The way we approach this differs on a cable by cable basis. The process for each cable; and our agreements are tracked through our Fisheries Liaison Mitigation Action Plan (FLMAP) which is submitted as part of our marine licence application to Marine Scotland. For cables installed under the previous consenting regime this is recorded within Proximity Agreements.

2.4 Through good communication and understanding of one another's viewpoint we aim to minimise any potential impacts by agreeing mitigation strategies before we begin the works. This approach will continue through the project design, licensing, delivery, maintenance and decommissioning phases of each submarine electricity cable. This will enable us to co-exist with other marine users.

[1] Scottish Hydro Electric Power Distribution plc are the distribution licence holder under the Electricity Act 1989

[2] Examples are the cables from Kintyre to Hunterston; and Caithness to Moray. Further cables to Orkney and Shetland are in planning stages

2.5 To ensure consistency, this Standard Operating Procedure has been developed to ensure compliance with industry best practice around communications with both commercial fishing and other legitimate sea users.

This document should be read in conjunction with:

- *the cable specific FLMAP*
- *Marine Mitigation and Co-existence Planning Statement*

3. Roles and responsibilities

3.1 A Company Fishing Liaison Officer, with support from the Fishing Industry Representative, is employed to support our submarine electricity cable inspections, surveys, maintenance, installations and decommissioning activities to:

- identify and pro-actively engage with commercial fishing stakeholders as well as statutory and non-statutory organisations that have the potential to be affected by our activities
- formulate, agree and implement efficient communication channels for distributing project related information to stakeholders
- continue to obtain and address the concerns of commercial fishing stakeholders to be used in the formulation of mitigation strategies
- promote productive co-existence through pre-application consultation of construction and cable laying plans with fishing stakeholders, including the possible use of cable protection measures if required

4. Fishing gear interaction Standard Operating Procedure

4.1 Static fishing gear has the potential to disrupt the associated offshore survey and construction works commissioned for the survey, replacement and decommissioning of submarine electricity power cables. Static fishing gear, creeling (potting) in particular, is a significant fishery carried out by smaller vessels (>10m) in the vicinity of submarine electricity cables In Scottish waters. Temporary competition for space between static gear and construction/survey vessels is likely to be the most frequent source of conflict.

4.2 Whilst effort will be made to minimise disruption and reduce potential gear conflict, a process for dealing with any claims relating to legitimate loss or damage incurred through our work is in place. This process is detailed within the Marine Mitigation and Co-existence Planning[3] document and will ensure that any claim is dealt with properly.

[3] Appendix C of Fishing Liaison Mitigation Action Plan

4.3 Towed gear has a higher potential to damage submarine electricity cables post-installation as demersal trawls (including trawl doors and clump weights), beam trawls and dredges are in contact with the seabed and can dig into the sediment to varying depths.

4.4 While fishermen will be kept up to date with construction areas and activities through the Notice to Mariners[4] Kingfisher Weekly Notice of Operations and update emails from the developer and their subcontractors, there is scope for conflicting demands on the same area of sea. Construction schedules are fluid and dependent upon many factors and fishermen may have limited access to internet or email updates.

4.5 In order to standardise the response to possible scenarios of gear interactions with survey/ construction vessels this document will incorporate sections detailing:

- Fishing gear that may be encountered
- Scenarios where construction activity and fishing operations could come into conflict
- Defined actions to take should survey/construction works and fishing gear interactions occur

[4] See Appendix A of Fishing Liaison Mitigation Action Plan

5. Standard Operating Procedure for Unattended unmarked static gear (no co-operation agreement)

5.1 For the scenario of unattended, unidentified static gear set in an area where survey/construction works are planned, the Company Fishing Liaison Officer with support from the Fishing Industry Representative will follow a step-by-step process as detailed below. A flow diagram is also shown in Figure 1 on the next page.

Step 1 Unidentified static gear in survey/construction area.
Be aware if a particular area is regularly fished by certain vessels and know how individual fishermen mark their gear (i.e. flags, buffs, buoys, dhans, and cans).

Step 2 Exhaust all avenues to determine who owns the static gear.
Contact the fishermen known to consistently target the area and ask if the gear belongs to them, or if they know who the gear belongs to. Each CFLO would be provided with a list of known local fishermen and their contact details.

Step 3 If the owner of static gear is identified move to Step 4. If not identified move to Step 7

Step 4 Contact the owner and request removal of static gear survey/construction area. If agreed, the owner removes gear and work can continue. If not agreed move to Step 5.
Contact the owner to request removal of their gear from the area. Agreement results a final outcome of "Gear is removed and survey/construction can continue", and non- agreement leads to the static gear remaining on site.

Step 5 Gear remains on site due to fisherman's inability or refusal to remove gear. Move to Step 6.
The fisherman may be either unwilling or unable to move the static gear, resulting in delays to the survey/construction works unless further actions are taken.

Step 6 Consider offering payment for loss of catch where static gear fishermen are excluded from their fishing ground for longer than 28 days in a continuous 12 month period. If payment accepted then work can continue. If payment is not accepted, then move to Step 7.
If the fisherman is unwilling to move the static gear due to the added expense and lost time fishing, a good will payment may be offered to the fisherman to cover these losses. If the payment is accepted work can continue, and if the payment is not accepted the static gear remains on site.

Step 7 Consider legal, and health and safety implications of removing static gear without the owner's permission. If not removed, go to Step 8. If removed, go to Step 9.
If the fisherman remains unwilling or unable to move the static gear it may be necessary to consider removing the static gear without the owner's consent in order to prevent delays to surveys/construction. The legal considerations of removing a third party's property will need to be assessed in addition to the health and safety implications.

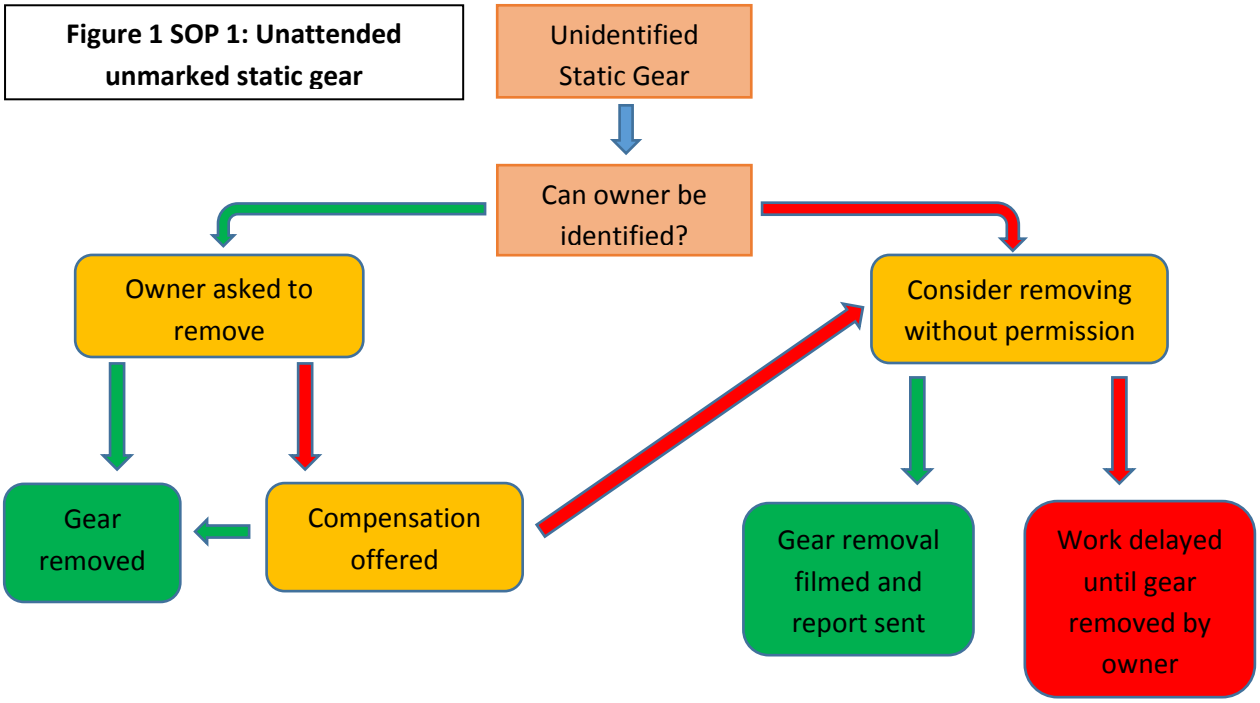
Step 8 **We do not remove the static gear, therefore work would be delayed.**

The surveys/construction would be delayed until the fisherman moves the static gear as part of normal fishing operations. It is not possible to define a time period for when the gear would be worked, as it is affected by both physical factors (season, weather conditions, tides, working gear elsewhere) as well as personal factors (holidays, sickness, vessel breakdown).

Step 9 **We remove static fishing gear.**

In order for survey/construction works to continue, we authorise the removal of the static fishing gear in the site, following an agreed methodology. The removal of the static gear must be video recorded and sent along with the supporting report detailing actions taken to Marine Scotland Fishing Officer. We will reimburse the fisherman for the loss of catch, and to replace, loan, repair or reimburse for any damage caused to the static gear during its removal.

Figure 1 SOP 1: Unattended unmarked static gear



6. Standard Operating Procedure for Towed Gear Vessel

6.1 Scallop dredging and trawling could occur in the vicinity of submarine electricity cables. As the submarine cables are an asset in a fixed place and, as it is against the law to damage a cable wilfully or through negligence, the vessels should not be passing directly over the survey/construction area.

6.2 Furthermore, all vessels must adhere to the International Regulations for Preventing Collisions at Sea, 1972 in respect to vessels of limited manoeuvrability.

6.3 If a towed gear vessel is encountered during the survey/construction works the following steps should be taken:

Step 1 Towed gear vessel encountered

Make contact via the radio to explain the safety zones and politely request that the vessel promptly vacates the safety zone. It would be unusual for the vessel to disregard such requests.

Step 2 Towed gear vessel does not comply

If the towed gear vessel does not cooperate and continues to behave disruptively thus delaying the survey/construction works, a report should be written detailing the incident. The vessel would then be reported to the Maritime and Coastguard Agency.

7. Standard Operating Procedure for Other Legitimate Sea Users

7.1 A range of other legitimate sea users could be present in the vicinity of the submarine electricity cables and sometimes these operators can be nomadic. As such, vessels may be unaware of the survey/construction works and competition for space is likely to be the most frequent source of conflict. See previous comment in section 6.

7.2 Any interactions of vessels with survey/construction vessels will be regulated by the International Regulations for Preventing Collisions at Sea 1972 (COLREGs), in respect to vessels of limited manoeuvrability.

7.3 If a vessel is encountered during the survey/construction works the following actions should be taken:

Step 1 Towed gear vessel encountered

Make contact via the radio to explain the safety zones and politely request that the vessel promptly vacates the safety zone. It would be unusual for the vessel to disregard such requests.

Step 2 Towed gear vessel does not comply

If the towed gear vessel does not cooperate and continues to behave disruptively thus delaying the survey/construction works, a report should be written detailing the incident. The vessel would then be reported to the Maritime and Coastguard Agency.

Appendix B Company Fishing Liaison Officer Specification

Scottish & Southern Electricity Networks

FLMAP

Appendix B

Company Fishing Liaison Officer Specification

Contents

Scottish & Southern Electricity Networks

1 Introduction

1.1 Fifty-nine Scottish Islands are currently connected to the electricity network that serves Great Britain by the Scottish Hydro Electric Power Distribution network. They are connected by submarine electricity cables which supply electricity to homes and businesses on the islands.

1.2 The cost of maintaining the electricity distribution network involves investment from us. The cost of supplying electricity to the Scottish islands is supported by 760,000 electricity consumers. The cost of operating our network is included in the bill from their electricity supplier.

1.3 To maintain a safe, secure and reliable supply of electricity to the islands we have a planned replacement programme for submarine electricity cables which are nearing the end of their operational life.

1.4 We are tendering for a Company Fishing Liaison Officer to help us fully understand potential impacts, co-existence opportunities and displacement considerations, and guide appropriate mitigation responses for every submarine electricity cable we require to undertake inspections, surveys construction, maintenance, installation or protection works.

2 Objective of tender

2.1 Our overall objective is for our works to progress with as little disturbance as possible to other legitimate sea users. Therefore, the Company Fishing Liaison Officer and the Fishing Industry Representative are expected to ensure that the flow of information and discussion between us and legitimate sea users is established and maintained throughout the project.

2.2 To evidence the information and discussion which has taken place, we expect to see monthly iterations of the fishing liaison plan and a summary report of the key meetings and agreed mitigation. This will form an audit trail - documenting that communication and liaison between us and other legitimate stakeholders has taken place.

3 Role of Company Fishing Liaison Officer (CFLO)

3.1 The CFLO will be employed directly by the developer and have delegated authority to fully represent the developer on legitimate sea user issues with the support of the Fishing Industry Representative (see below). Whilst the CFLO may delegate much of the day-to-day liaison between the fishing industry and the developer to the FIR, they are likely to be the primary point of contact for the fishing industry when direct communication with the developer is required and their identity should be made available to the fishing community and other legitimate sea users.

3.2 During the inspection, survey, installation, protection, maintenance and decommissioning phases of the submarine electricity cable, the CFLO will ensure the timely provision of information regarding programmed vessel movements or delays. In addition, this communication channel

Scottish & Southern Electricity Networks

also facilitates dissemination of information, for example urgent bulletins in the event of any marine hazards (e.g. loss of plant onto the seabed). The CFLO will provide a manned 24-hour contact number.

4 CFLO duties

4.1 It will be the responsibility of the CFLO to liaise with and between legitimate sea users and us, with the support from the Fishing Industry Representative (FIR). To ensure that the CFLO is able to carry out these duties they must:

- Establish a strong positive working relationship with legitimate sea users
- Have a detailed understanding and awareness of legitimate sea users
- Have a good understanding of the potential impacts of our activities on legitimate sea users

4.2 To assure us that this has been delivered they must provide evidence that they have:

- Prepared, maintained and shared a project specific register of local legitimate sea user groups and associations for each cable at the start of the project;
- Promulgated information on the project design envelope and the construction programme, and provide updates on any changes to the project as they occur;
- Gathered legitimate sea users' views around the effects of our submarine electricity cables on their working practices; and work with them to resolve any issues or conflicts arising where practicable; and continue dialogue throughout the project planning stage and actual construction and operation;
- Produced, managed and updated our Fishing Liaison Mitigation Action Plan (FLMAP) which supports our Marine Licence Applications.

4.2. The FLAMP must:

- have a specific register of legitimate sea user groups and associations who will have an interest in our submarine electricity cable;
- form an audit trail which documents communication and liaison between all parties from before we apply for a licence, during licensing and after during installation and maintenance phase of the cable
  For example: events arranged or attended to promulgate information around submarine electricity cable survey, design, installation and maintenance;
- understand the impact of these activities and agreed mitigation actions;
- outline navigational impact assessment meetings; and meetings to agree the removal of fixed gear during surveys or construction;
- Explain ways in which safety and exclusion zones have been clarified.

4.3. The CFLO must also employ a Fishing Industry Representative (FIR). The duties of the FIR include:

- Forming the principal link between the legitimate sea users and the employer - reliably transmitting views;
- Providing the operator with guidance on legitimate sea user activity in the area and draw attention to particular fishing sensitivities;
- Liaising with skippers with the objective of relaying accurately their concerns regarding site sensitivities and any other issues back to the CFLO;
- Disseminating updated project information to legitimate sea users and communicating any changes that occur;
- Promoting methods of work which minimise disturbance to fishing;
- Monitoring fishing activities in the development area;
- Advising fishing vessels of works activities and engaging with vessels that do not adhere to safe working practices
- Attending public meetings to keep stakeholders up to date
- Have a role to play in negotiations on mitigating the effects of construction, operation and decommissioning which may, where all else fails, lead to the need for financial arrangements, such as compensation for temporary movement of static gear. This will need to happen according to recognised standards across the whole territorial waters. Therefore the FIR should always act professionally and not make any disclosures or commitments on these subjects without the authority of the developer

5. CFLO and FIR approach and deliverables

4.3 We expect all activities undertaken by the CFLO and FIR to be undertaken in compliance with FLOWW Best Practice Guidance for Offshore Renewables Developments: Recommendations for Fisheries Liaison

4.4 We expect the CFLO to develop a Fishing Liaison and Mitigation Action Plan (FLAMP) to be delivered for each marine licence we apply for. Each FLAMP is applicable to all legitimate users of the sea and is not limited to commercial fishing. It must be developed, regularly reviewed and updated.

Appendix C 'How Scottish Hyrdo Electric Power Distribution co-exists with marine users'

Scottish & Southern
Electricity Networks

How Scottish Hydro Electric Power Distribution co-exists with other marine users

ssen.co.uk

Scottish & Southern Electricity Networks

Who we are

Scottish and Southern Electricity Networks (SSEN) is responsible for maintaining the electricity networks across the north of Scotland as well as central southern England. With over 3.7 million customers across the UK, including some 740,000 in Scotland, SSEN ensures a safe and reliable supply for homes and businesses through a series of transmission and distribution networks.

The Scottish and Southern Electricity Networks (SSEN) brand operates under two distinct businesses:

1. **Scottish Hydro Electric Transmission plc (SHE Transmission)**
   SHE Transmission owns and maintains the higher voltage network (132kV and above), which has the primary function of transporting electricity from multiple generation sources (including hydro and windfarms) to the load centres across the country.

   SHE Transmission will engage on a project by project basis with those likely to be affected by the project. This reflects the unique nature of each Transmission project and the specific needs of other marine users in proximity to each of these projects.

2. **Scottish Hydro Electric Power Distribution plc (SHEPD)**
   Our operating region covers a quarter of the UK landmass which attracts unique challenges both in terms of distance and location. As well as the major towns and cities across the north of Scotland, we connect to most Scottish islands with over 100 subsea cable links, including the Inner and Outer Hebrides, Arran and the Orkney Islands. We also serve the Shetland Islands, which runs as a separate electrical system without a connection to the mainland.

This document relates only to SHEPD.

How we operate

We are embarking on a significant programme of investment to ensure that the fifty-nine Scottish islands who depend on us continue to receive a safe, reliable and secure supply of electricity.

Whilst we realise the importance of our work in maintaining the electricity network, we also appreciate the need to interact with other people and businesses who may be impacted by our work, including marine users and fishermen.

Scottish and Southern Electricity Networks has a safety licence – if it's not safe, we don't do it – which covers both our work and the environment we operate in. This includes ensuring the safety of marine users and fishermen. To ensure we carry out our work safely, we must co-exist with marine users and appreciate their work and requirements. We are committed to communicating effectively to understand any concerns and where possible plan our work in such a way that we look to minimise its impact.

This document describes how we will plan to co-exist with other marine users as we carry out these works and follows on from the recent consultation with fishermen in early 2019[1].

[1] Fishing Industry Mitigation & Co-existence Consultation – Summary of Results May 2019

Principles of co-existence

As a responsible operator, Scottish and Southern Electricity Networks secures consents required to install, maintain, operate and remove submarine electricity cable infrastructure in the marine environment.

Through good communication and understanding of viewpoints we aim to minimise any potential impacts by agreeing mitigation strategies before we begin the works. This approach continues through all phases of the project for each submarine electricity cable, thus enabling co-existence with other marine users as we carry out our activities.

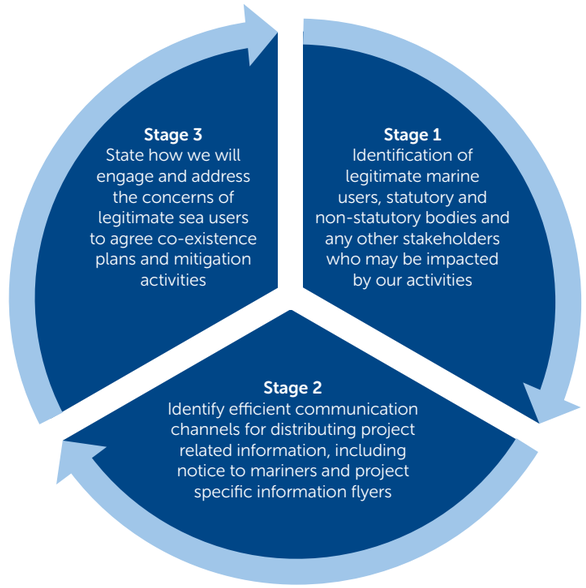
Works are planned to keep unnecessary interference with other legitimate sea users to a minimum. We achieve this by actively engaging with legitimate sea users and those with consented development rights close to our operations.

Our consultations and agreements are tracked through our Fishing Liaison Mitigation Action Plan (FLMAP) for each cable. This is a key document which shows the associated risks to the commercial fishing industry and other legitimate sea users, addresses the potential effects and identifies how to minimise and mitigate potential impacts.

We will give as much notice as is practicably possible for our planned operations and provide updates when things change.

Approach to co-existence with legitimate sea users

Our approach to communicating operations for each cable:



Mitigations

Mitigations, detailed within the Fishing Liaison Mitigation Action Plan, can cover a variety of tasks including:

Managing our cable works to minimise any potential effects on the marine environments, habitats and static gear fishing by carrying out scouting surveys to identify potting areas and any other relevant static gear areas

Raising awareness of the danger of fishing near submarine electricity cables

Taking account of legitimate sea users concerns when deciding on the most appropriate methods of submarine electricity cable installation and protection

Co-existence commitment through our contractors

Contractors who carry out work for us, also have to embrace our approach to co-existence and safety.

Compliance with:

- the relevant Code of Good Practice for Vessels
- procedures in relation to gear fastening or loss
- safety zones around in-water activities areas
- interaction Standard Operating Procedures
- agreements contained within the Fishing Liaison Mitigation Action Plan as well as cable proximity agreements

Contractors are instructed to:

- organise the works as far as is practicably possible to reduce the potential combined loss of fishing area during their operations
- adhere to agreements to mitigate risks
- maintain communications through Company Fishing Liaison Officer (and Fishing Industry Representative where appropriate)
- give a minimum of 20 days' notice for planned operations where possible to allow for gear removal

Vessels used for operations:

- adhere to the International Regulations for Preventing Collisions at Sea, 1972 and the International Convention for the Safety of Life at Sea, 1974 requirements
- maintain polite, proactive and professional communications with fishing vessels and other legitimate sea users during offshore operations
- monitor the required VHF channels at all times so as to receive communications directly from fishing vessels and other legitimate sea users
- undertake project specific appropriate risk assessments in respect of potential interactions with commercial fishing vessels and their gear
- where possible, adopt anchor release procedures to minimise the size of anchor mounds and where necessary undertake remedial actions to level any significant anchor mounds
- recover any debris/equipment accidently dropped during construction and maintenance activities where practicable and safe to do so

Being fair and reasonable

Whilst we will always try to advise of operations 20 days in advance, sometimes we have to carry out work quickly to restore or maintain electricity supplies to our customers. This can lead to circumstances where fishermen are impacted by our work and are unable to remove gear from our operations area.

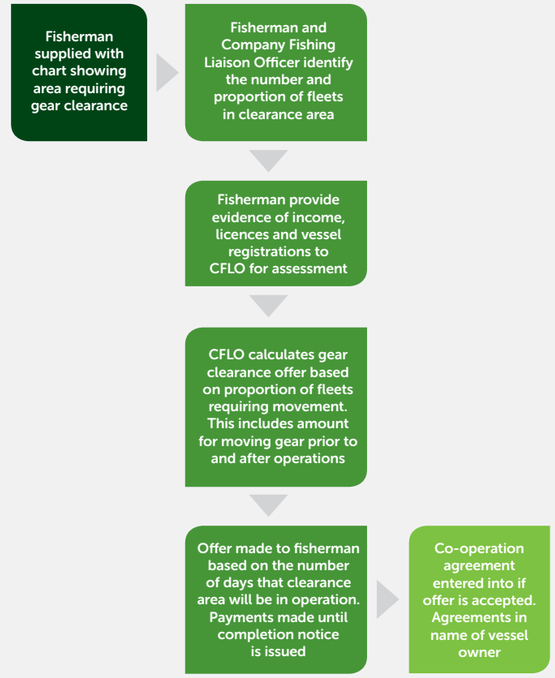
We want to be fair in these situations and will consider compensating marine users and fishermen when they have, through no fault of their own, been impacted leading to a loss of gear or earnings which cannot be mitigated. Compensation payments will only be considered where there are significant residual impacts that cannot be mitigated, for example gear loss claims.

A Fishing Claim Form[2] should be filled out within 30 days of the operations and evidence produced in order to assess the loss claimed. All claims are passed to our Company Fishing Liaison Officer for assessment. Should we fail to agree the matter with the claimant, the claim may be referred to an independent surveyor or arbiter.

Our Fishing Industry Mitigation and Co-existence Consultation confirmed that payment within 30 days of a claim being assessed and validated was deemed acceptable by the vast majority of fishermen.

Standard claims process

Co-operation agreement process



Sometimes we may require extensive clearance of fishing gear from an area due to the equipment being used during survey or installation operations. Gear clearance is necessary to ensure that the operations are completed safely. As this may be requested in areas where fishing is highly prevalent, we will consider offering a co-operation agreement to compensate fishermen. These proportion-based agreements may factor in time spent moving gear prior to and following our operations as well as payments during the operations period.

[2] See 'Fishing Claim Form' attached at back of document

How the compensation is assessed

As a member of the European Subsea Cables Association our approach is consistent with industry best practice and summarised in the table below.

Table 1: Fisheries claim and our response

Fisheries Claim	Our response
Snagging and subsequent loss of fishing gear on "live" cables	Claims for loss of fishing gear will be predominantly from vessels working mobile gear. Such claims should be submitted using the Fishing Claim Form. Incidents will be investigated on a case by case basis. Claims will be considered only where evidence to support consultation of Cable Awareness Charts on board the vessel concerned, together with evidence that the vessel complied with recommended procedures during the incident. Vessel position data e.g. plotter and AIS should be supplied (where available) with the claim, demonstrating vessel position/ track 12 hours prior to and 12 hours after the incident. The relevant maritime authority may be asked to assist in the verification of any claim. This will be determined on a local basis. Verified claims will compensate for actual loss.
Snagging and subsequent loss of fishing gear on "decommissioned" cables	
Loss of earnings due to disruption to fishing activity during cable inspection, survey, installation, protection, maintenance and decommissioning activities - day boats	Claims for loss of earnings as a result of exclusion from an area or loss of/damage to fishing gear will be predominantly from vessels working static gear. Compensation will be paid on an exceptional basis only and at our sole discretion. Fishermen will need to demonstrate exceptional circumstances. Evidence of loss will be required to be produced through the local fishing association (e.g. past catches, regular tows etc.). The relevant maritime authorities may be asked to comment on the credibility of claims. This will be determined on a local basis.
Static Gear – Movement and repair	Static gear removal operations represent a worst case scenario which would only be considered in the event of all other avenues of negotiation having been exhausted. Compensation may be considered for repositioning of static gear from a cable works area during inspection, survey, installation, protection, maintenance and decommissioning operations.

If static gear is encountered, the legal as well as the health and safety implications will have to be considered before the gear is removed without permission.

As Scottish and Southern Electricity Networks will not compensate mobile or towed gear fishermen for planned operations, any interactions will be considered under the International Regulations for Preventing Collisions at Sea 1972.

Process in the event of snagging gear

As our cables are marked on admiralty charts, mariners should show reasonable care and avoid towing gear near to or across them. If our cables are damaged by gear and reasonable care hasn't been demonstrated, the mariner may be held liable for the damage.

In some circumstances, where the mariner is deemed to have shown reasonable care and wasn't negligent, compensation may be considered where they have sacrificed gear to avoid damage to the cable. Again, the Fishing Claim Form should be completed within 30 days of the incident.

Approach to be taken if gear becomes snagged

If gear strikes or becomes fastened to a cable, the following approach is recommended, based on Seafish and KISORCA guidance[3].

- if the fastened gear is not easily retrieved, fishermen should not apply excessive winch, line or net hauler loads or engine powers in attempts to retrieve fastened gear
- fishermen are to advise the coastguard and the Company Fishing Liaison Officer immediately, giving an accurate position of the vessel and/or lost gear
- if the coastguard confirms that the vessel is in the immediate vicinity of a cable, serious consideration will be given to the slipping of the gear and buoying and recording of its position
- if the gear is slipped, after buoying off the gear, the position should be confirmed with the coastguard and the Company Fishing Liaison Officer
- on return to port, the skipper is to contact the local Fishery Office and register the incident in the normal manner
- on no account should skippers grapple in an attempt to recover fishing gear lost or cut away in the vicinity of a submarine electricity cable.

[3] http://www.kis-orca.eu/safety/emergency-procedures

Making a claim for loss or damaged gear

If, through no fault of their own, a fisherman snags or damages gear in the vicinity of one of our cables, the vessel skipper should follow a process to allow a claim to be made efficiently and assessed without delay.

All details of the incident should be recorded in the vessels' logbook as soon as the situation is made safe. Date, time and location of the occurrence and description of the gear lost or the damage sustained.

A record of the vessel position/course for 12 hours before and 12 hours after working the damaged or lost gear.

Upon return to port the skipper should report the incident to a Fishery Officer.

The Company Fishing Liaison Officer should be notified of the incident as soon as possible but within 5 days at the latest.

The Company Fishing Liaison Officer will provide a Fishing Claim form which should be completed and returned with evidence within 30 days. The Company Fishing Liaison Officer will assess what notices were sent out and may ask for further information from the claimant.

Any claim for loss of earnings while waiting for replacement creels to be produced will need to be supported by:

- fishing accounts as submitted for tax purposes for the last three years
- total sales notes provided to support the three years' annual accounts
- copies of vessels fishing license and where appropriate shellfish entitlements
- completed Marine Management Organisation Subject Access Form
- copy of certificate of British Registry for each vessel for which a claim is being made
- copy of a valid Maritime and Coastguard Agency certification
- permission for the Fishing Industry Representative/Company Fishing Liaison Officer to view vessels GPS plotters to verify fishing in the area. In the absence of these, independent evidence would be required from a reputable third party e.g. Marine Scotland.

Once the completed Fishing Claim Form and supporting evidence has been received, the Company Fishing Liaison Officer will assess the claim. This will include reviewing the evidence, considering metocean conditions and practice of fishermen in the local area. The Company Fishing Liaison Officer will also consider if gear had been deployed in the area despite notices and warnings being given.

If a claim is assessed and deemed to be valid, it will be passed to SSEN for payment within 30 days of receipt.

Law and regulation relating to cables

We have to protect our cables because they supply electricity to homes and businesses in some of the most remote parts of the UK. Any potential damage could cause real issues for those in need and we must try to ensure that this doesn't happen. Equally, we want to make sure that sea users know where our cables are and when we are planning to carry out operations, in order to keep everyone safe.

With regards to navigation, in normal circumstances, the provisions laid down by International Regulations for Preventing Collisions at Sea, 1972 set down actions to be taken by fishing vessels and those restricted in their ability to manoeuvre (such as a cable laying vessel) when two such vessels are approaching to avoid collision and to allow both to continue operating with minimum disruption.

This document sets out our commitment to behave in a fair and reasonable manner when carrying out our work to avoid conflict. As well as safety issues, there are also potential legal implications if sea conventions are not followed.

The law and submarine cables

The United Nations Convention on the Law of the Sea Article 113, 1982 (UNCLOS), and UK 1964 Continental Shelf Act sets out that it is an offence to wilfully damage submarine cables.

The legal implication of damaging a submarine cable is summarised in the International Cable Protection Committee (IPCC) booklet "Fishing and submarine cables" (2009):

"Under UNCLOS and the earlier 1884 International Convention for the Protection of Submarine Cables, if a mariner damages a cable and the damage could be avoided by taking reasonable care as a prudent seaman, then the person causing the damage is liable. If a mariner damages a cable with fishing gear or an anchor, when he could have seen that cable on a chart and avoided it, he may be liable for the damage. In addition to civil liability for damages, the mariner may face criminal sanctions for culpable negligence or wilful injury to a cable.

However, international law recognises an exception. If the mariner's damage to the cable is caused by taking necessary actions to save the vessel or crew, there is no liability. An example would be a ship without power being set upon a shoal that is saved by anchoring and in the process a cable is damaged.

International law also requires that a vessel that has gear or an anchor caught on a cable is required to sacrifice the gear or anchor to avoid damage to the cable. Provided the mariner was not negligent in contacting the cable in the first place, the mariner is entitled to indemnity for the cost of the sacrificed gear or anchor by the owners of the cable".

Scottish & Southern Electricity Networks

Fishing Claim Form

In line with best practice, we request that claims are submitted within 30 days of the date of occurrence.[1]

DETAILS OF VESSEL AND CLAIMANT

Name, letters, type, length and description of vessel	
Home port	
Fishing association (if applicable)	
Name of owner/skipper (please specify)	
Address	
Telephone	
Email	
VAT registration number	

DETAILS OF CLAIM INCIDENT

Date and time of incident	
Location of incident If possible, please provide chart/image	Latitude: Longitude:
Water depth	
Conditions	Weather: Sea: Visibility:
Description of incident and supporting evidence Incidents will be investigated on a case by case basis. Claims will be considered only where evidence to support consultation of cable awareness charts on board the vessel concerned, together with evidence that the vessel complied with recommended procedures during the incident. Vessel position data e.g. Plotter and AIS should be supplied (where available) with the claim, demonstrating vessel position/track 12 hours prior to and 12 hours after the incident	
Has fishing gear been damaged or lost? Any claims for loss of earnings while waiting for replacement gear will need to be supported	
What attempts were made to recover gear?	

[1] ESCA Guideline No.13 Fishing Compensation Guideline and Scottish and Southern Energy Power Distribution Working with Grantors.

Scottish & Southern Electricity Networks

PARTICULARS OF CLAIM

A. Fishing gear description

Item	Type	Manufacturer	Age of gear	Quantity	Cost(£)

B. Other costs related to claim

Estimated loss of fishing time	
Estimated catch loss Evidence of loss will be required to be produced (e.g. past catches, regular tows etc.)	
Estimated savings during loss of fishing time (e.g. fuel, landing fees)	
Any other losses incurred (please specify)	
Total value of claim A + B (£)	

DECLARATION

Signature of claimant	
Date of claim	

I DECLARE THAT THE ABOVE STATEMENT AND FACTS SUPPLIED ARE TRUE AND UNDERSTAND THAT MAKING THIS CLAIM DOES NOT IMPLY AGREEMENT WITH EITHER THE COMPANY FISHING LIAISON OFFICER OR SCOTTISH AND SOUTHERN ELECTRICITY NETWORKS.

This completed form should be passed to the Company Fishing Liaison Officer for validation. Information provided in this form is used purely for the purposes of processing this claim.

For information on how we collect and process your data, please see our privacy notice, www.ssen.co.uk/PrivacyNotice
If you do not have access to our website or would like a hard copy sent, please contact us at submarinecables@sse.com

Reference

Fishing Industry Mitigation & Co-existence Consultation

Scottish & Southern Electricity Networks

Published in November 2019

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Appendix D Notice to Mariners Example Template

Notice to Mariners

Scottish Hydro Electric Power Distribution (SHEPD) – Notice to Mariners [Month Year].

Issued [Date].

Please be advised that [Contractor] (on behalf of SHEPD) will be undertaking a [description of works, e.g.: survey across the CABLE ROUTE submarine electricity cable corridor]. The survey will utilise four different vessels to complete survey operations:

- Vessel 1
- Vessel 2
- Vessel 3
- Vessel 4

The survey operations will commence during an appropriate weather window following [date] and will continue over a planned minimum period of [16 weeks], weather permitting.

The survey operations will be concentrated across the cable corridor within the boundary defined by the following coordinates.

[Chart of survey area]

[Coordinates of survey area boundary]

The survey operations will be undertaken by the [vessel 1, vessel 2, vessel 3…..] pictured below. The vessels may not commence their activities at the same time but may operate simultaneously at times over the survey duration. The vessels may operate primarily from [Kirkwall] but may use other ports along the [island] coastlines, such as [port 1] or [port 2].

Vessel Photo	Vessel Description
[Photo of vessel 1]	[Description, contact details and call sign of vessel 1, e.g.: The M.V. [vessel name] is a multi-purpose survey vessel, 65.2 m in length with a beam of 14m and a draft of 5.3 m; transit speed of 12 kts and a survey speed of ~5 kts (geophysical survey). Operating on a 24-hour basis]
[Photo of vessel 2]	[Description, contact details and call sign of vessel 2]
[Photo of vessel 3]	[Description, contact details and call sign of vessel 3]
[Photo of vessel 4]	[Description, contact details and call sign of vessel 4]

Survey Description

The [survey/installation] will involve [the coverage of dedicated survey lines by the vessel(s) with a full suite of geophysical survey systems (Multi beam Echo Sounder, Side Scan Sonar and Magnetometer)] mounted on the vessel or towed from the stern of the vessel.

Other vessels should maintain an appropriate and safe distance of 500m when passing the [survey] vessel(s) whilst undertaking survey operations, and should pass at the lowest possible speed to avoid vessel wash effects. The vessel(s) will be working [24 hour operations] and will display appropriate day shapes and lights during reduced visibility and night operations. The vessel(s) will also monitor VHF Channels 16 and 12.

Primary Survey Equipment

Primary equipment	Towed / Hull mounted / Sampling	Approximate tow length (if applicable)	Vessel
Multibeam Echosounder	Hull mounted	N/A	Vessel 1, Vessel 2
Sidescan Sonar	Towed	50-350m	Vessel 1, Vessel 2
Magnetometer Array	Towed	50-350m	Vessel 1, Vessel 2
Remotely Operated Vehicle (ROV)	Tether Management System	N/A	Vessel 1
Subsea Crane Operations	Crane	WD 140 max	Vessel 1

Contact Details

The vessel contact details are given in the tables below

VESSEL 1	
Call sign	
Bridge	
Offshore manager / Party Chief	
Email	
Onshore Site Manager	

VESSEL 2	
Call sign	
Bridge	
Offshore manager / Party Chief	
Email	
Onshore Site Manager	

Fishing Liaison Officers

Fishing liaison for the [survey] will be co-ordinated by Brown and May Marine (BMM). For any commercial fishery queries please contact the Company Fishing Liaison Officer (CLFO) Alex Winrow-Giffin on 07760 160039 / 01379 872144 or at alex@brownmay.com, and the local Fishing Industries Representative (FIR) Chris Davidson on 07810 305100 or at cad17@hotmail.co.uk. The CFLO and FIR will also be in place to liaise with the vessel and fishing operations in the area. The vessel master will issue regular broadcasts whilst the survey vessel is operating to ensure minimal disruption and that vessels maintain an appropriate and safe distance.

Further Details

Further enquiries should be addressed to the following people in the following order:

Name	Contact Number	Email
Project Manager TBC	TBC	TBC

Appendix E Communication Programme

An example standardised high level cable replacement communication plan is given in Table 29 (this is in the event that cable replacement is identified following inspection surveys). A programme of actions to be undertaken in the event of an unplanned outage is given in Table 30. Please note that the communication plan will need to be applied to each cable. The Pentland cable will be replaced so requires communication and consultation for this construction. The Hoy cable is an inspection survey to inform if the cable requires replacement.

Table 29 Cable replacement programme communication plan

Time	What's happening	What we want to communicate	Who we are speaking to and frequency
May 2018	Cable inspection list created for 2017/18 We have developed a list based on a number of defined factors and previous cable history. This allows us to "guess future health" where the most vulnerable cables will be and their importance on the network. This includes roughly 150% of the cable projects we intend to deliver, so we make sure we capture the right projects.	No communications at this stage.	N/A
August 2018	Mobilisation of inspection vessels for 2017/18 programme of cable replacement Sending out inspection vessel, divers and/or ROV closely following cable to inspect cable condition and record it on film. This is then used to inform our health assessment of the cable.	Essentially a safety message to let mariners know that we will have vessels in the area.	▪ Mariners: the number of vessels, routes they are taking and activities they will be completing (daily)

Time	What's happening	What we want to communicate	Who we are speaking to and frequency
December 2018	Review inspections from 2 years ahead to create 1 year ahead survey list From Inspection data we refine our project list to 125% of projects to make sure we survey as much as possible without wasting these works on cables which are healthy.	No communications at this stage, unless there has been engagement with stakeholders who have experienced wet outages.	Domestic and generation SHEPD customers to advise them that we will be replacing the cable (one off).
June 2019	Survey 2017/18 Cable routes With our 125% list we then issue instruction to survey the cable routes. This uses a vessel dragging a sonar device across a wide area multiple times to build up an image of the sea bed. It may also include carrying out intrusive geotechnical investigations.	▪ Essentially a safety message to let mariners know that we will have vessels in the area. ▪ Messaging to highlight any environmental mitigation measures we have implemented to safeguard marine life (e.g. checking for dolphins before beginning sonar survey)	▪ Mariners: the number of vessels, routes they are taking and activities they will be completing (daily). ▪ Environmental groups: to highlight any mitigation measures (one off).
August 2019	Select 2017/18 cable routes and advise Marine Scotland (licensing) From our survey we defined the project which is to be delivered (i.e. Pentland East-Hoy cable replacement). Reducing our project list to 100% of what we are	▪ No external communications at this stage.	N/A

Time	What's happening	What we want to communicate	Who we are speaking to and frequency
	able to deliver.		
August 2019	<u>Pre-Survey Consultation</u> Informing fishermen of the upcoming cable route survey works, and seeking gear clearance to allow the survey vessels unhindered access to the survey corridor. Hosting meetings in Castletown (mainland) and Orkney to discuss details of the cooperation scheme.	▪ Advising fishermen in advance of the survey activities that gear removal from the survey area is requested, and that SSE will be entering into cooperation agreements with fishermen. ▪ Discussing with fishermen the information required to qualify for/calculate their cooperation agreements.	▪ Relevant static gear fishermen operating within the survey boundary, from both Pentland and Orkney. ▪ Fishing Industry Representatives (FIRs) in order to disseminate information to fishermen as and when required.
September 2019	<u>Pre-Installation Survey Works</u> Conducting offshore and nearshore geophysical and geotechnical surveys to devise how best to position and stabilise the cable along the route, and to assess environmental and archaeological features that will inform which permits should be applied for.	▪ Ensuring that stakeholders are kept up-to-date with details of the survey activities via NtMs. ▪ Informing fishermen with agreements when the survey area will be re-released to fishing.	▪ Relevant static gear fishermen operating within the survey boundary, from both Pentland and Orkney. ▪ Other stakeholders operating within the survey area. ▪ Fishing Industry Representatives (FIRs) in order to disseminate information to fishermen as and when required.
September 2019 – March 2020	<u>PAC events and license application</u> See separate communications plan please	See separate communications plan please	See separate communications plan please
Spring 2020	<u>Mobilisation of vessels for cable installation</u> With all cable projects now consented and	▪ Essentially a safety message to let mariners know that we will have vessels in the area.	▪ Mariners: the number of vessels, routes they are taking and activities they will be completing

Time	What's happening	What we want to communicate	Who we are speaking to and frequency
	licences approved, cable laying vessels are in the water. The boat(s) will collect all cables and fittings from our storage depot.		(daily).
Spring 2020	<u>Start – completion of installation works</u> ▪ From there the vessel will transit to the cable installation location and begin works. Dependant on the projects the vessel(s) might do one of more than one cable installation during one voyage. ▪ Dependent on physical protection levels of cables there may be a number of extra vessels dispatched to complete the works. ▪ In parallel there will be onshore works which will be connecting the cable from the sea/shore end into the existing electrical network. ▪ All vessel(s) return to port(s).	▪ Essentially a safety message to let mariners know that we will have vessels in the area.	▪ Mariners: the number of vessels, routes they are taking and activities they will be completing (daily). ▪ Domestic and business customers to be advised of any planned outages to allow us to carry out works (as required).
18 months after installation	<u>Post installation cable inspections</u> ▪ Sending out inspection vessel, divers and/or ROV to inspect the cables most recently installed. This will allow us to decide what remedial works are required. ▪ The cable is inspected by closely following cable to inspect cable condition and record it on film. This is then used to inform our assessment.	▪ Essentially a safety message to let mariners know that we will have vessels in the area.	▪ Mariners: the number of vessels, routes they are taking and activities they will be completing (daily).

Time	What's happening	What we want to communicate	Who we are speaking to and frequency
Remedial works following cable inspection (if required)	Remedial works If required, we will send more vessels to complete any works which are required (from protection to complete cable replacement).	▪ Essentially a safety message to let mariners know that we will have vessels in the area.	▪ Mariners: the number of vessels, routes they are taking and activities they will be completing (daily).

Table 30 Unplanned outage due to wet fault in cable

Time	What's happening	What we want to communicate	Who we are speaking to
Day 1	Declared a wet fault following testing at termination poles at both shore ends. This will give the distance to the fault location within the sea. Depending on the severity of the fault and the demand of the island we may be able to restore power whilst still investigating the fault. Embedded generation team will be deployed to operate the generators on the island. There will be someone on site 24 hours. We formally notify Marine Scotland, Northern Lighthouse Board and Fishing Liaison Officer at this point.	▪ We are aware of a submarine electricity cable fault. ▪ Our engineers are on site and are connecting generators to restore your power.	Domestic and business demand and generation customers.
Day 2 -13	We are mobilising our marine contractors (divers, vessels and crew).	▪ Power will have been restored from the customers' perspective. ▪ Generation customers may be assisting islands in maintaining supply stability. We may wish to communicate this as a good news story.	Domestic and business demand customers if we want to share good news story.

Time	What's happening	What we want to communicate	Who we are speaking to
Day 14 - 17	Locating the fault If the cable is 30 m deep then divers visually inspect the cable to find the fault. If it is deeper than this Remote Operated Vehicles are deployed to do the same job. Visibility can be very poor so this will impact on how long this takes.	▪ We need to be sharing safety message with the marine community to beware that we have vessels operating in the area. 1. This should highlight how many there are in the water and what they are doing. ▪ We may want to talk to the outside world about anyways we are mitigating our impact on either the environment or mariners.	Mariners: We will have vessels operating in and around the cables. This should advise of specific movements.
Day 18	Fault zone found Fault zone found visually (probably a worn section of cable with splayed armour; or disruption on seabed; or orange deposits on the armour). There is still work to be done in actually pin pointing the fault.	▪ We need to be sharing safety message with the marine community to beware that we have vessels operating in the area. 2. This should highlight how many there are in the water and what they are doing.	Mariners: We will have vessels operating in and around the cables.
Day 19 – 20	Fault finding ▪ We cut the cable in the fault zone. ▪ Tie one end that will remain in the sea to the buoy. We will check this is healthy once we have checked the end that we think has the fault. ▪ The end we think has a fault will be recovered onto the cable vessel. Jointers will strip the cable ready for testing. We find the exact location of the fault by cutting 10 metre lengths until the tests show that the cable is healthy. Once we know cable is healthy, we make it waterproof and tie it to a buoy.	▪ We need to be sharing safety message with the marine community to beware that we have vessels operating in the area. This should highlight how many there are in the water and what they are doing. Especially since there will a number of anchors temporarily in the area whilst we are looking for the fault and fixing it.	Mariners: We will have vessels operating in and around the cables. This should tell mariners where the buoys are and that the cable is at this location.
Day 21	Option A We call this a piece in where we are able to re-joint the cable with a new section of cable.	We need to be sharing safety message with the marine community to beware that we still have vessels operating in the	Option A and B Mariners: We will have vessels operating in and around the cables

Time	What's happening	What we want to communicate	Who we are speaking to
	Option B Depending on the distance from shore, we may take at new section of cable from the shore end to the existing cable (only needing one joint) Option C If the cable is too deep (greater than 50 metres) we can't repair the cable by traditional means we will have to replace the entire cable end to end. Option D If cable has faulted and is planned for replacement due to health of cable, we will replace entire cable end to end.	area. This should highlight how many there are in the water and what they are doing. Option A and B Estimate how long we will be in the area mending the cable for and advise of vessel movements. Option C and D We need to apply for full marine licence. Please refer to other communication plan from here on.	and estimate when we will be away Option C and D Mariners and statutory consultees: We need to do a full cable replacement and so need to apply for a marine licence which gives us consent to carry out the work.
Day 22	Option A Take cable vessel to fault location and joint new piece in between the two ends. The cable is tested to make sure it is healthy and then lowered back onto the sea bed. We will then re-energise cable when safe to restore power. Option B Position the cable vessel close to the shore in line with the point of termination in land. We float the cable from the cable vessel to connection point on shore. The floats are removed when cable is in position and install the cable to the jointing location where it meets the cable which we left in the sea attached to a buoy (the original fault location) and joint the cable. We test the cable to make sure it's clear of all faults. We will then re-energise cable when safe to restore power.	We need to be sharing safety message with the marine community to beware that we still have vessels operating in the area. This should highlight how many there are in the water and what they are doing.	▪ Domestic and business demand and generation customers: The submarine electricity cable has been repaired and mobile generators have been removed from the island. ▪ Mariners: We will have vessels operating in and around the cables and estimate when we will be away

Appendix F Commercial Fishing Charts

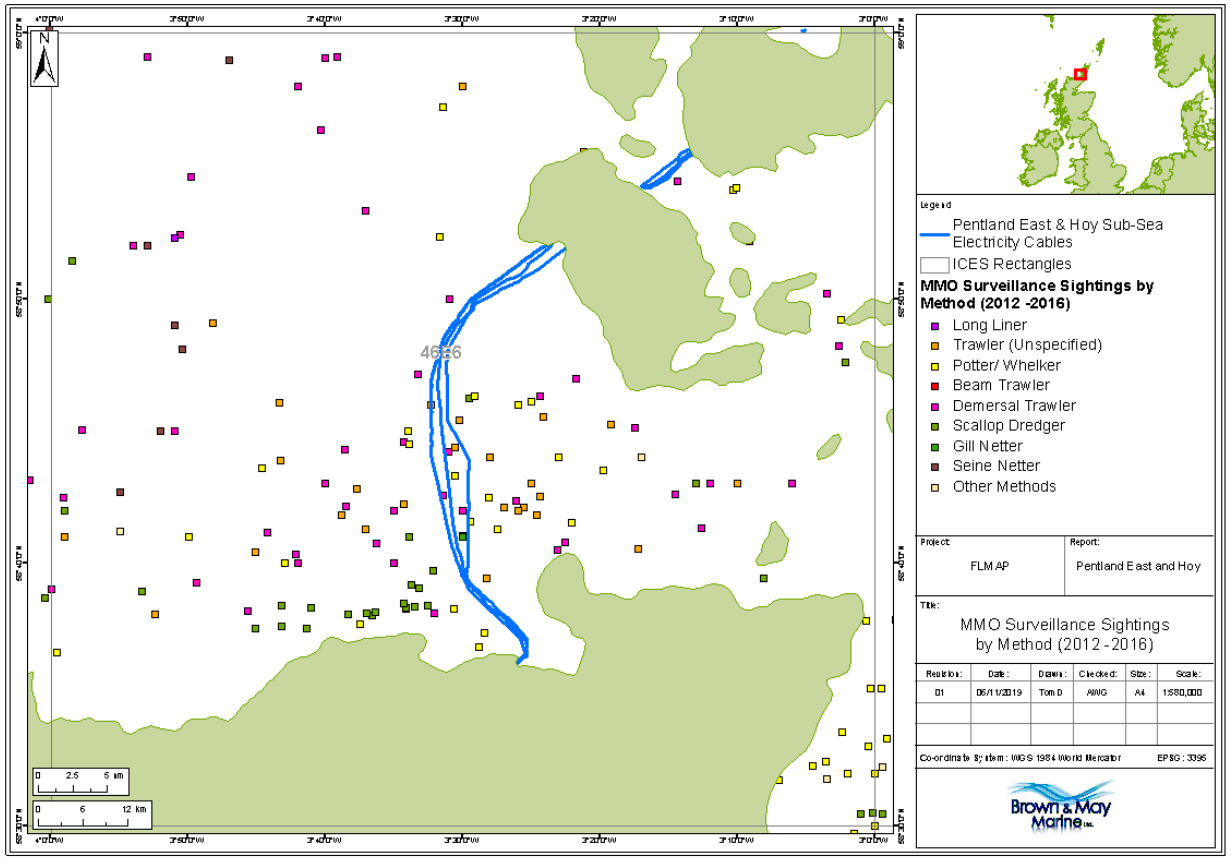

Figure 1 Surveillance sightings by method (2012-2016)

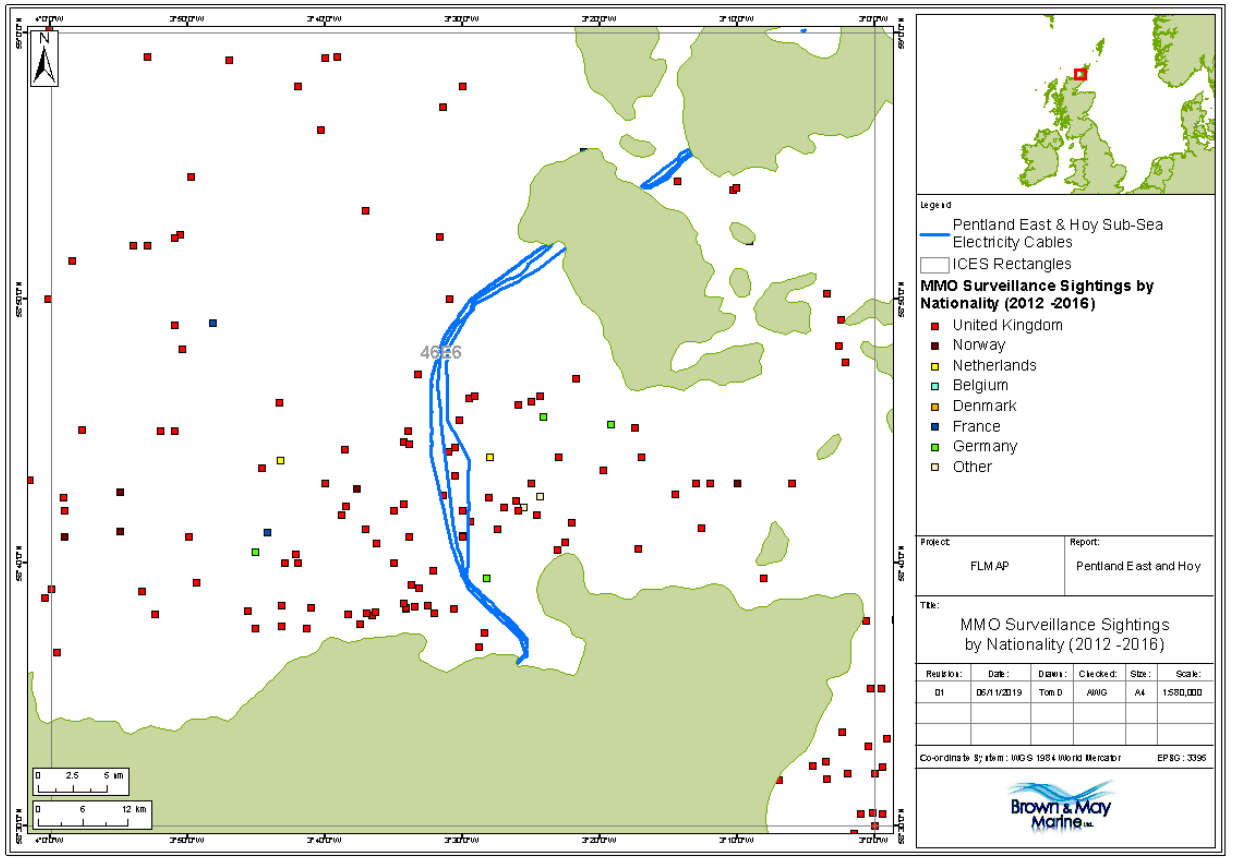

Figure 2 MMO surveillance sightings by nationality (2012-2016)

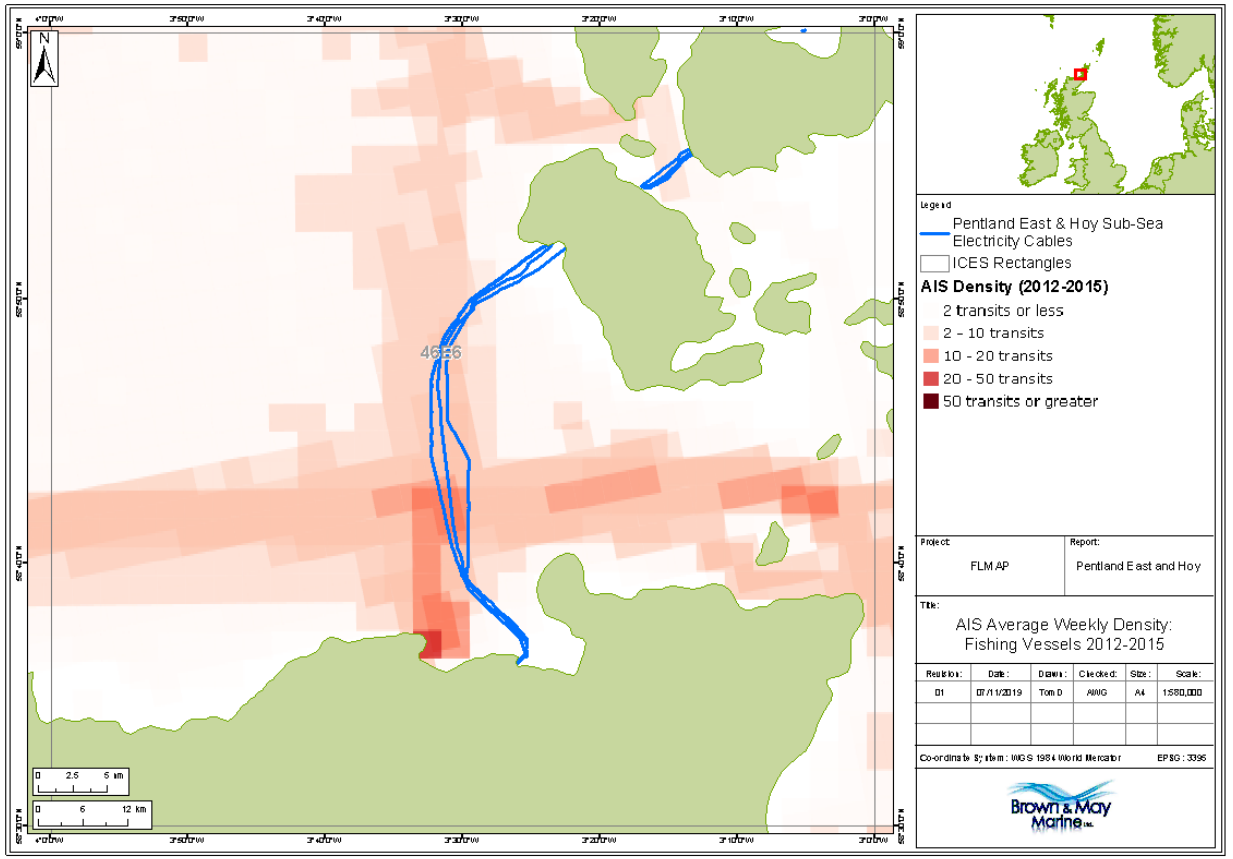

Figure 3 Fishing vessels 2012-2015

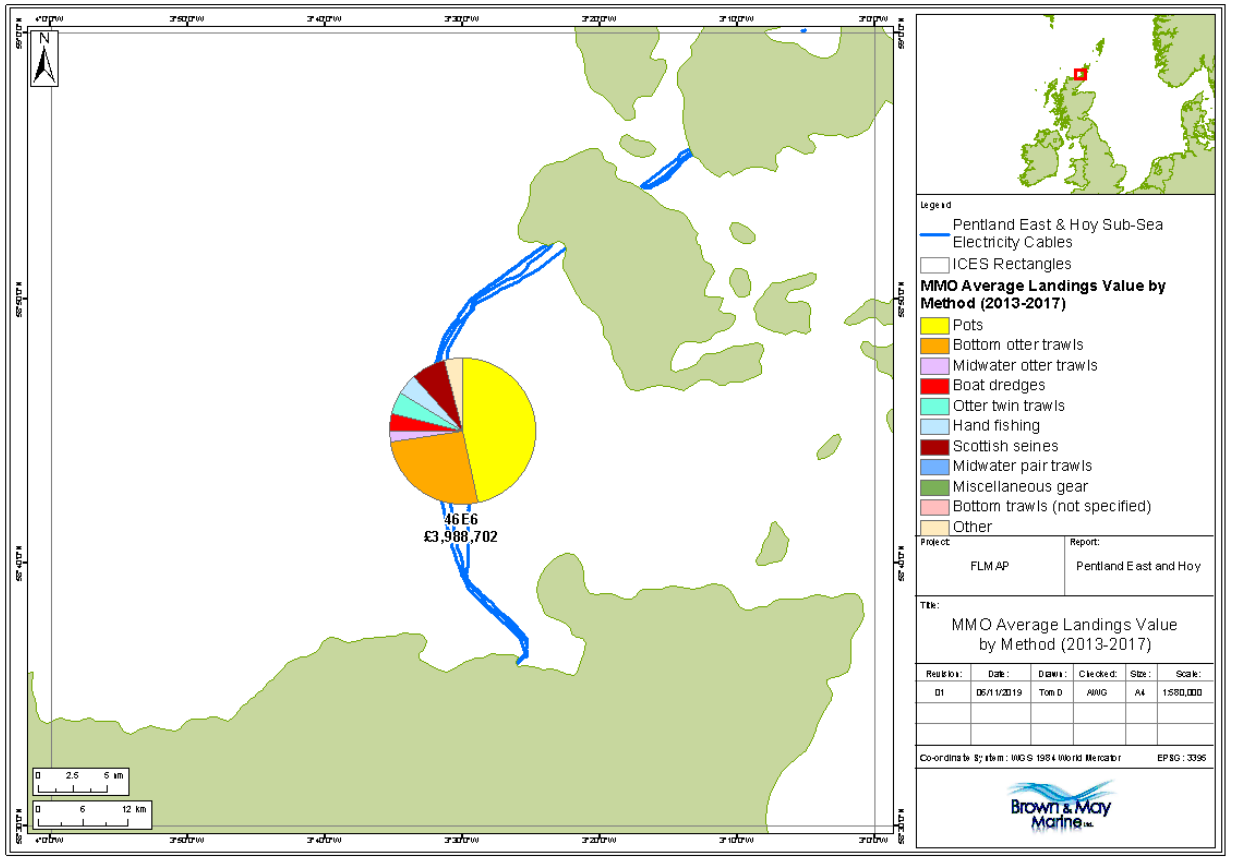

Figure 4 Average MMO landings by method (2013-2017)

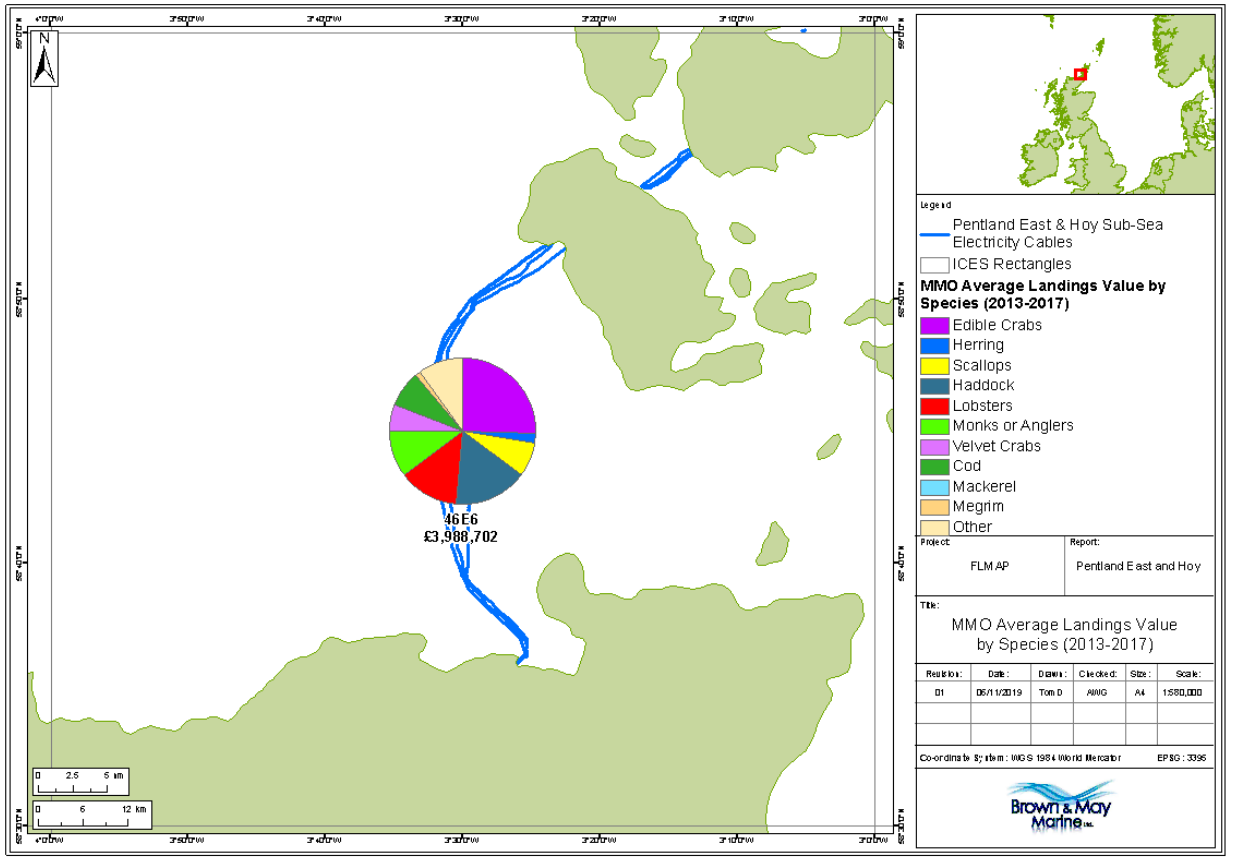

Figure 5 Average MMO landings value by species (2013-2017)

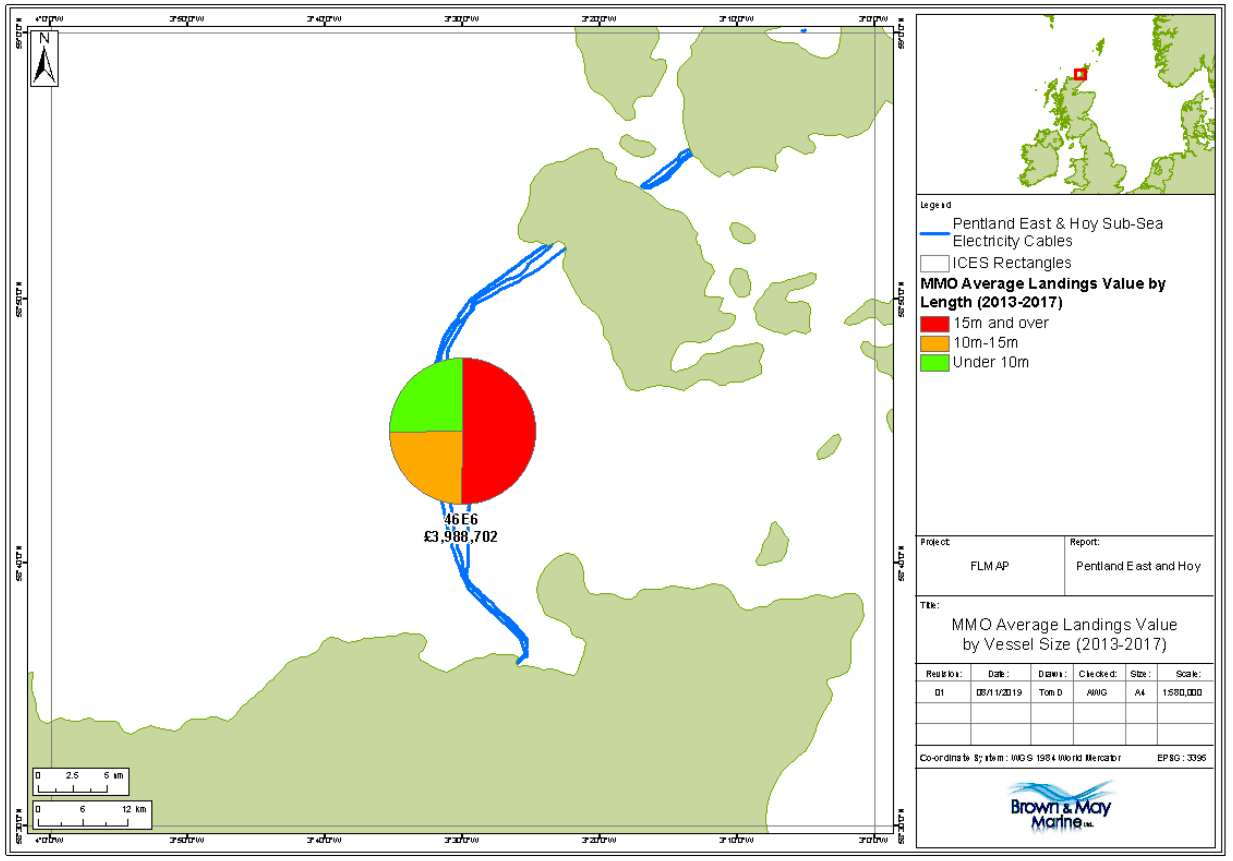

Figure 6 Average MMO landings value by vessel length (2012-2016)

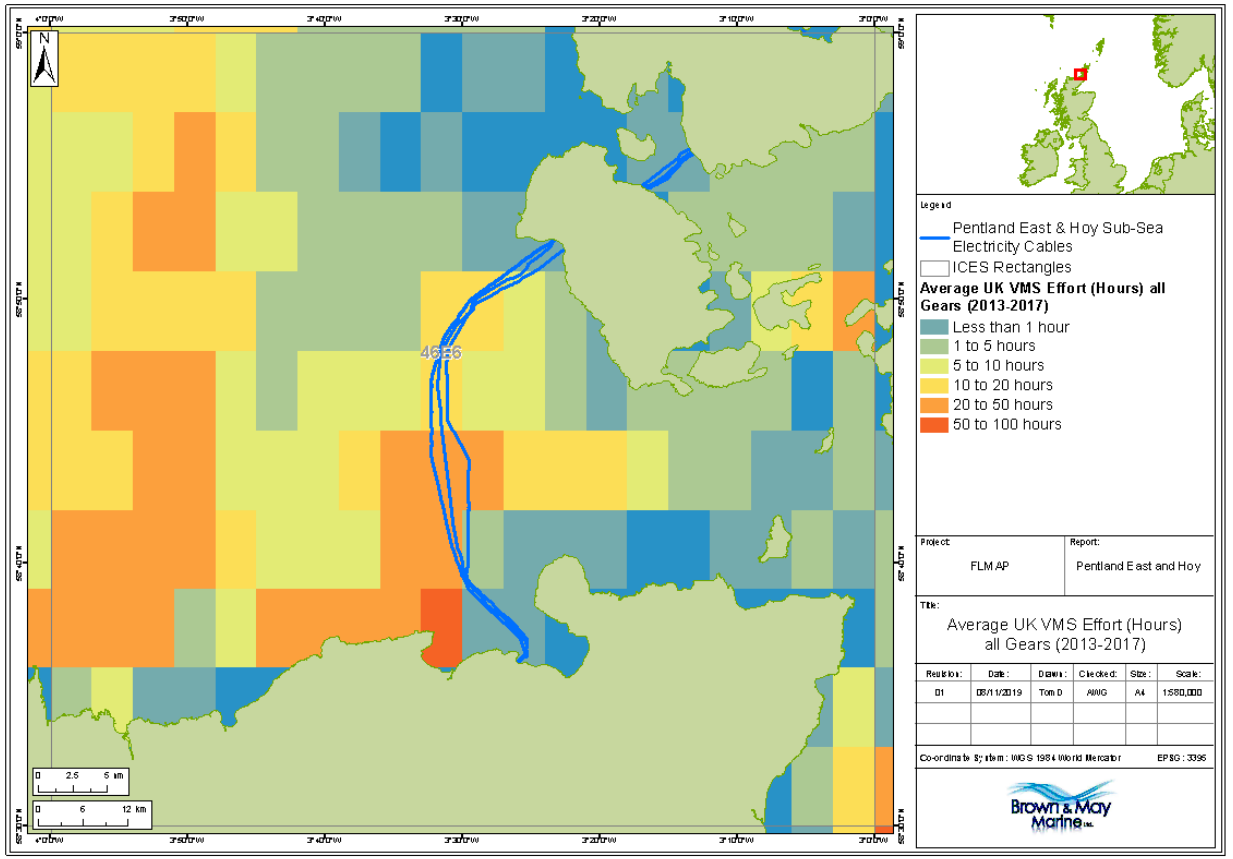

Figure 7 Average UK effort (hours) all gears (2012-2016)

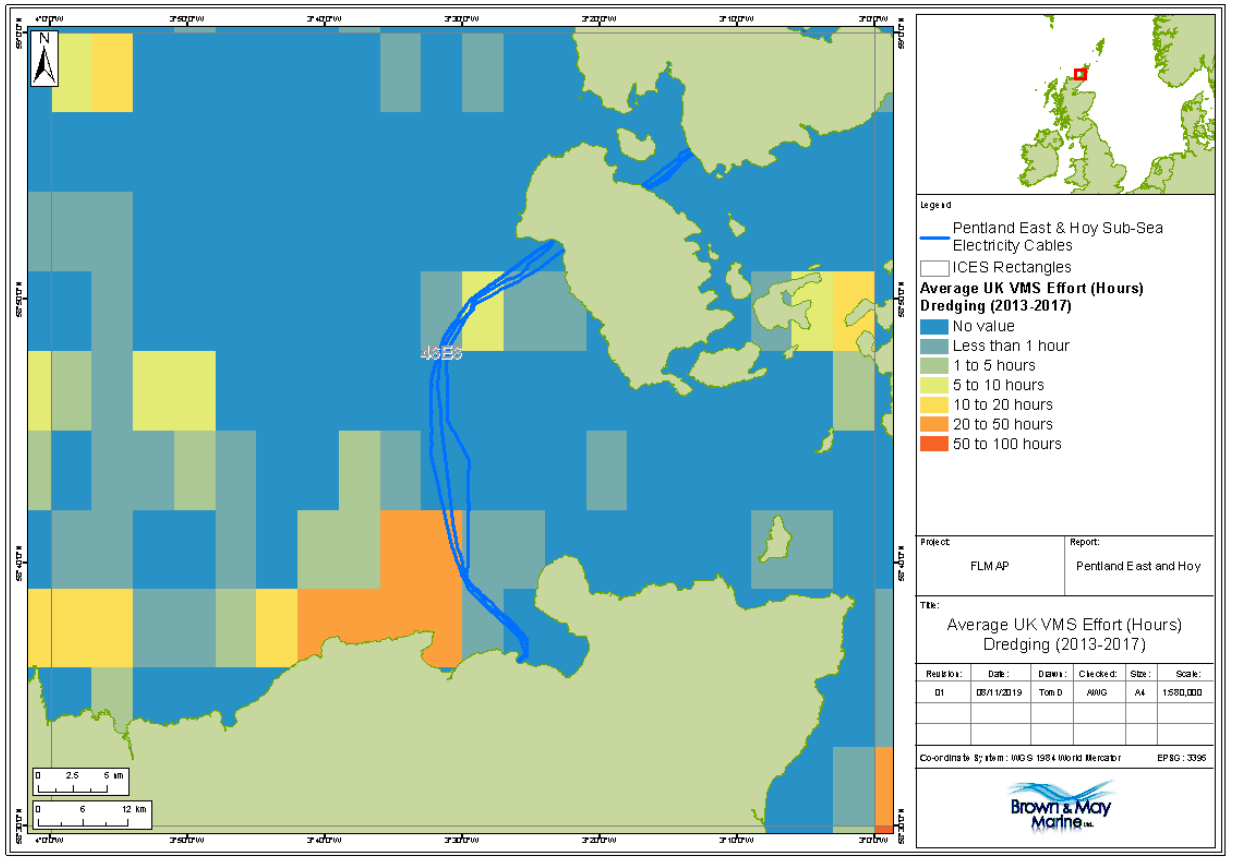

Figure 8 Average UK VMS effort (hours) dredging (2013-2017)

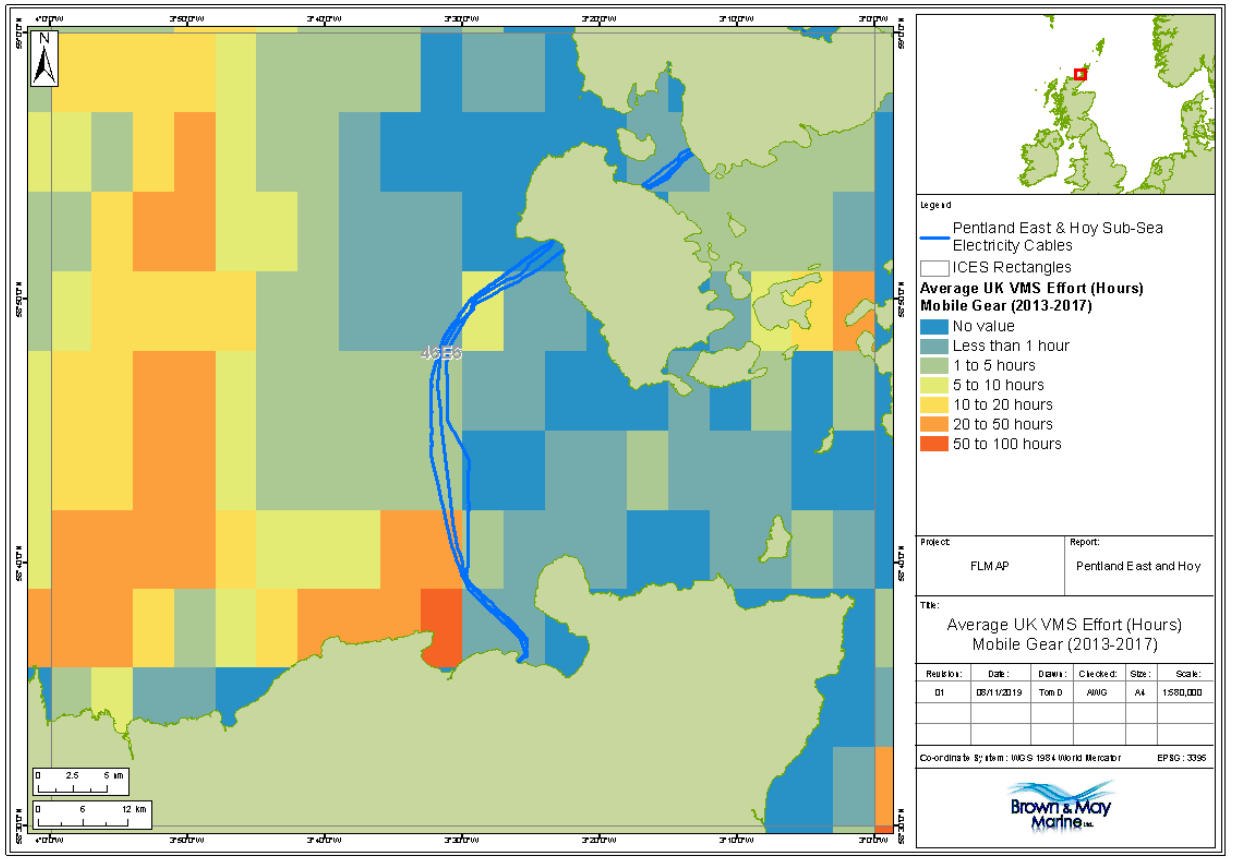

Figure 9 Average UK VMS effort (hours) by mobile gears (2013-2017)

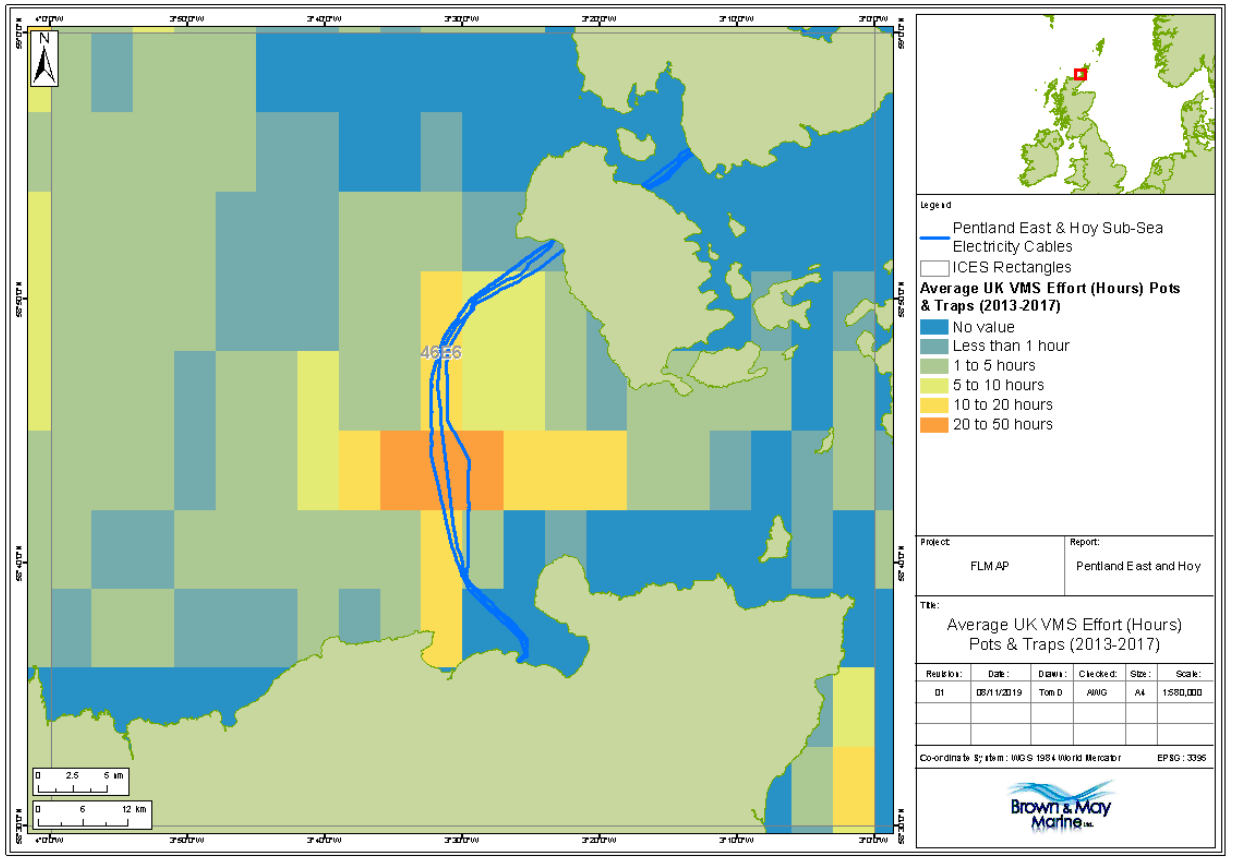

Figure 10 Average UK VMS effort (hours) pots and traps

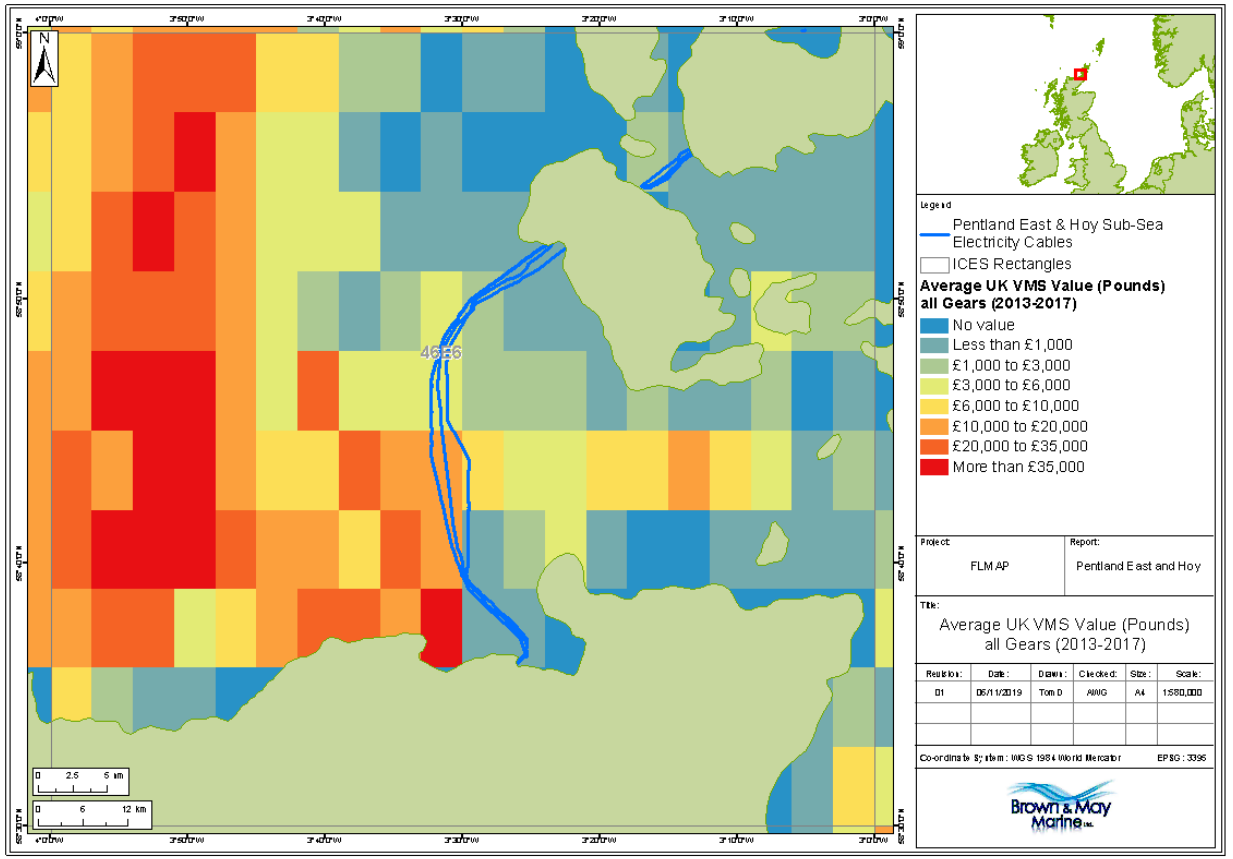

Figure 11 Average UK VMS value by all gears (2013-2017)

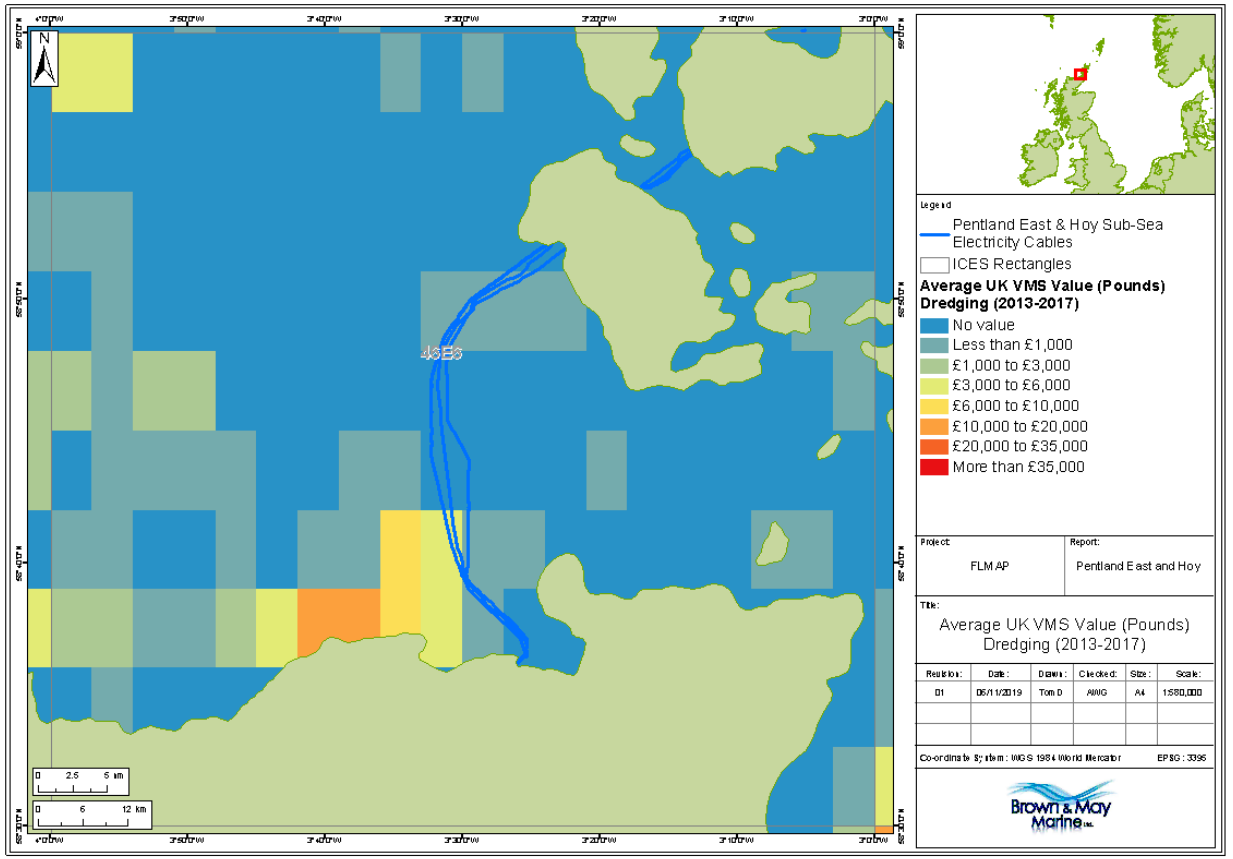

Figure 12 Average UK VMS value by dredging (2013-2017)

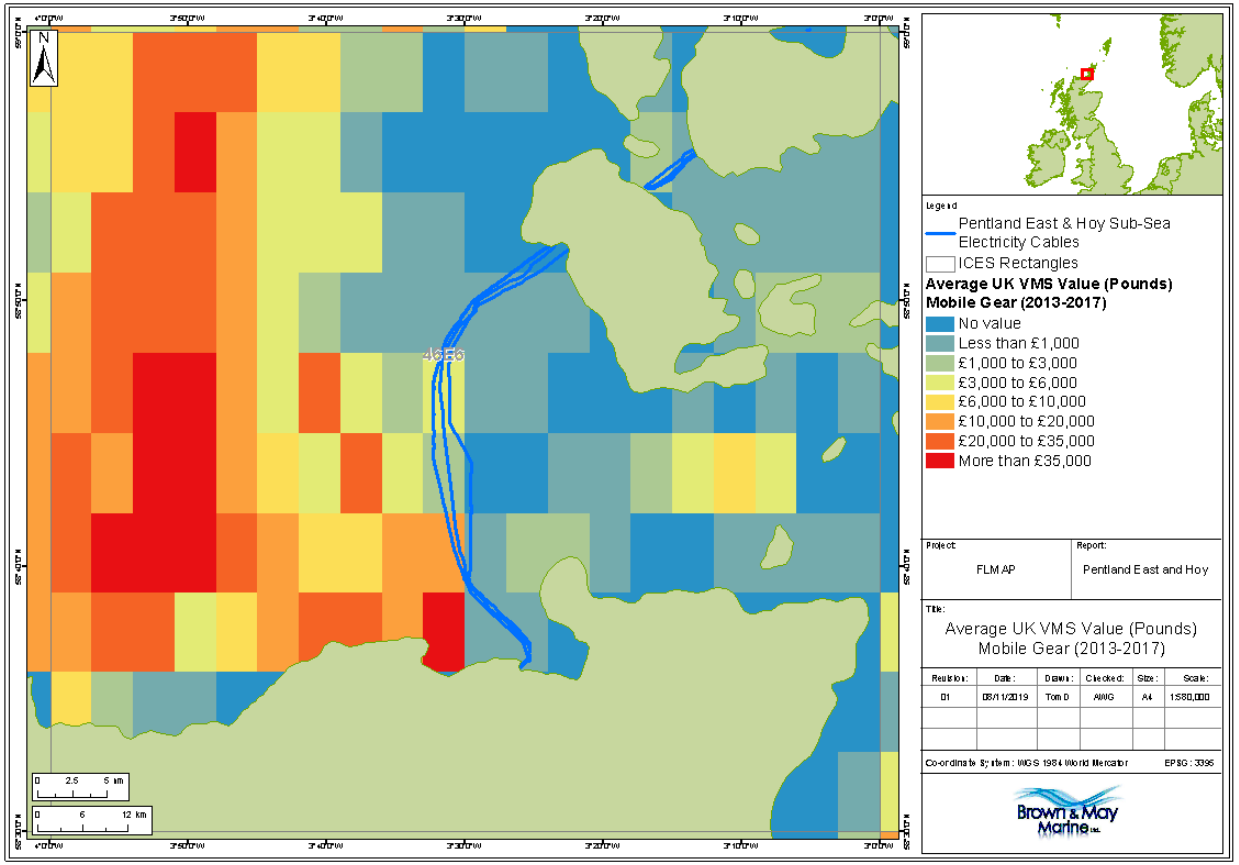

Figure 13 Average UK VMS value by mobile gears (2013-2017)

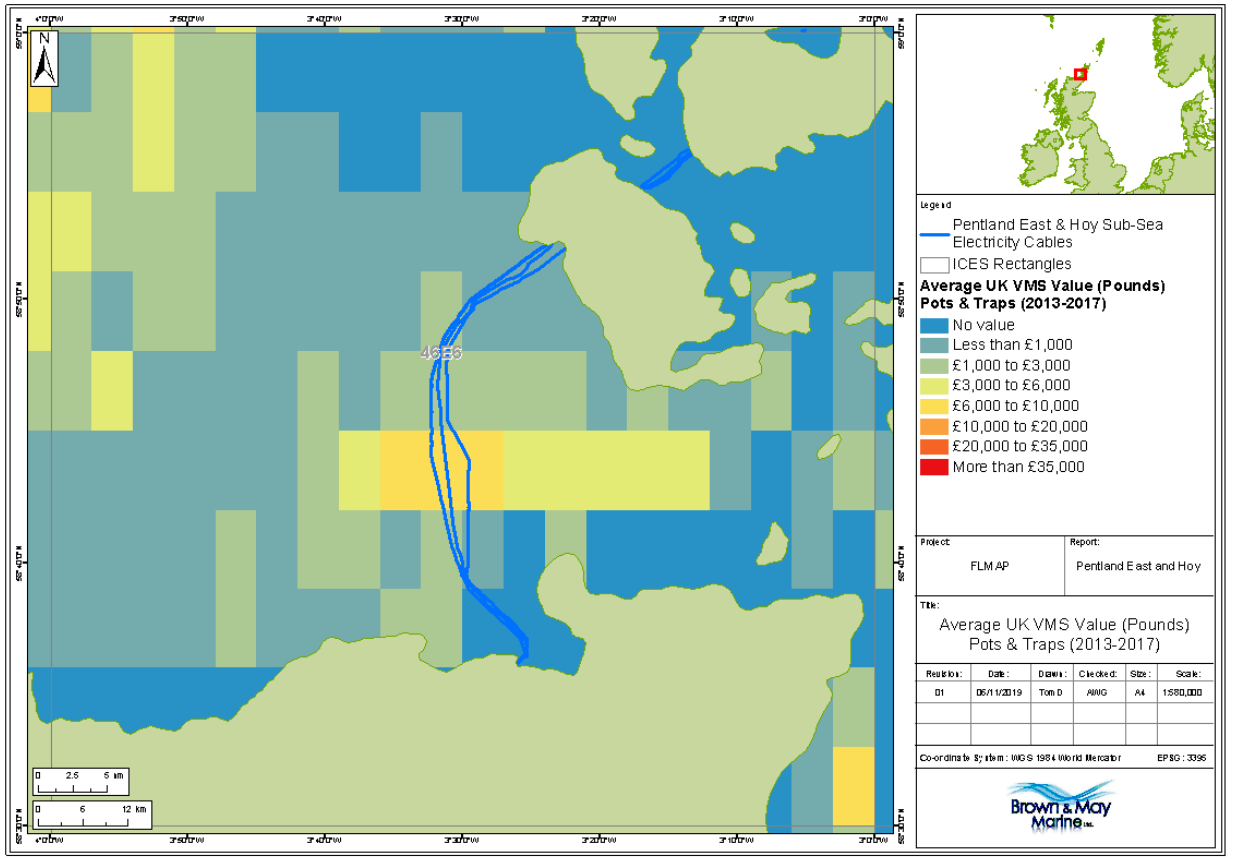

Figure 14 Average UK VMS value by pots and traps (2013-2017)

Appendix G Other Sea Users Charts

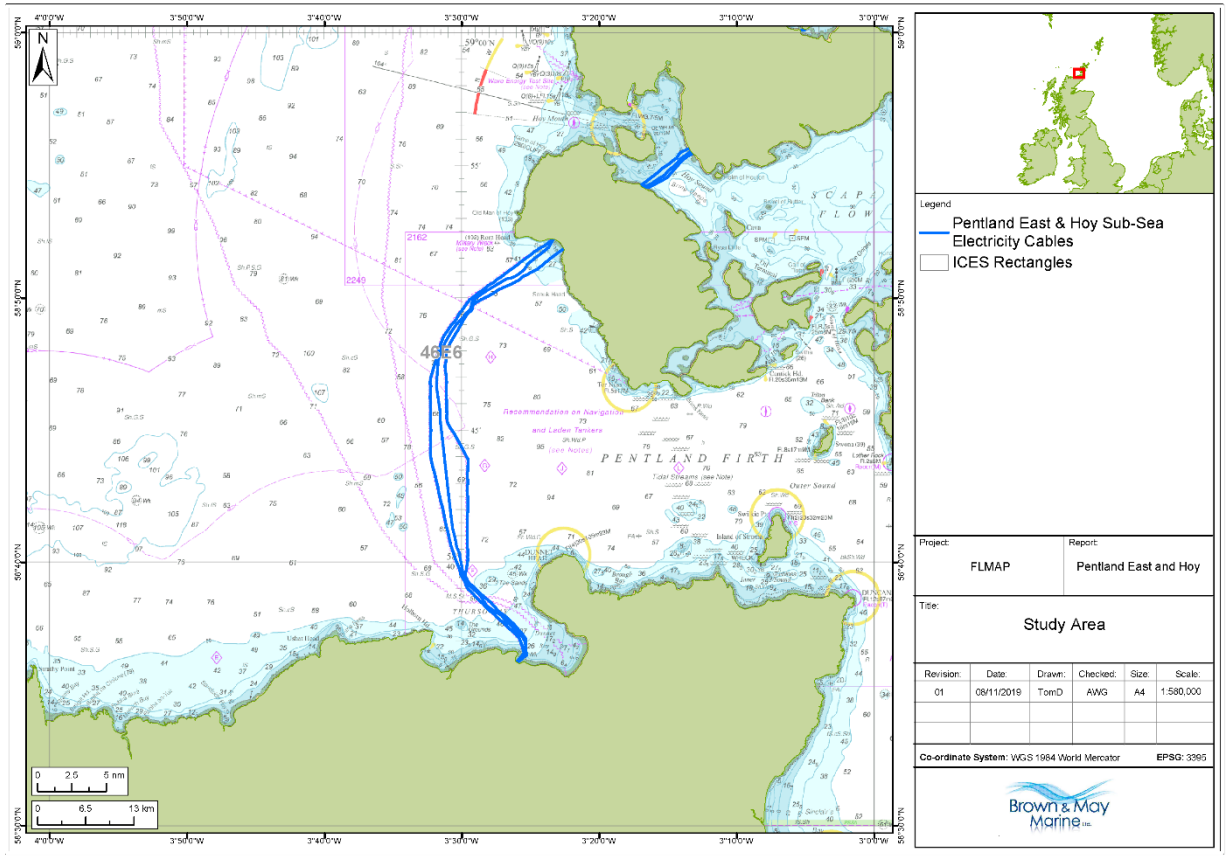

Figure 15 Pentland study area

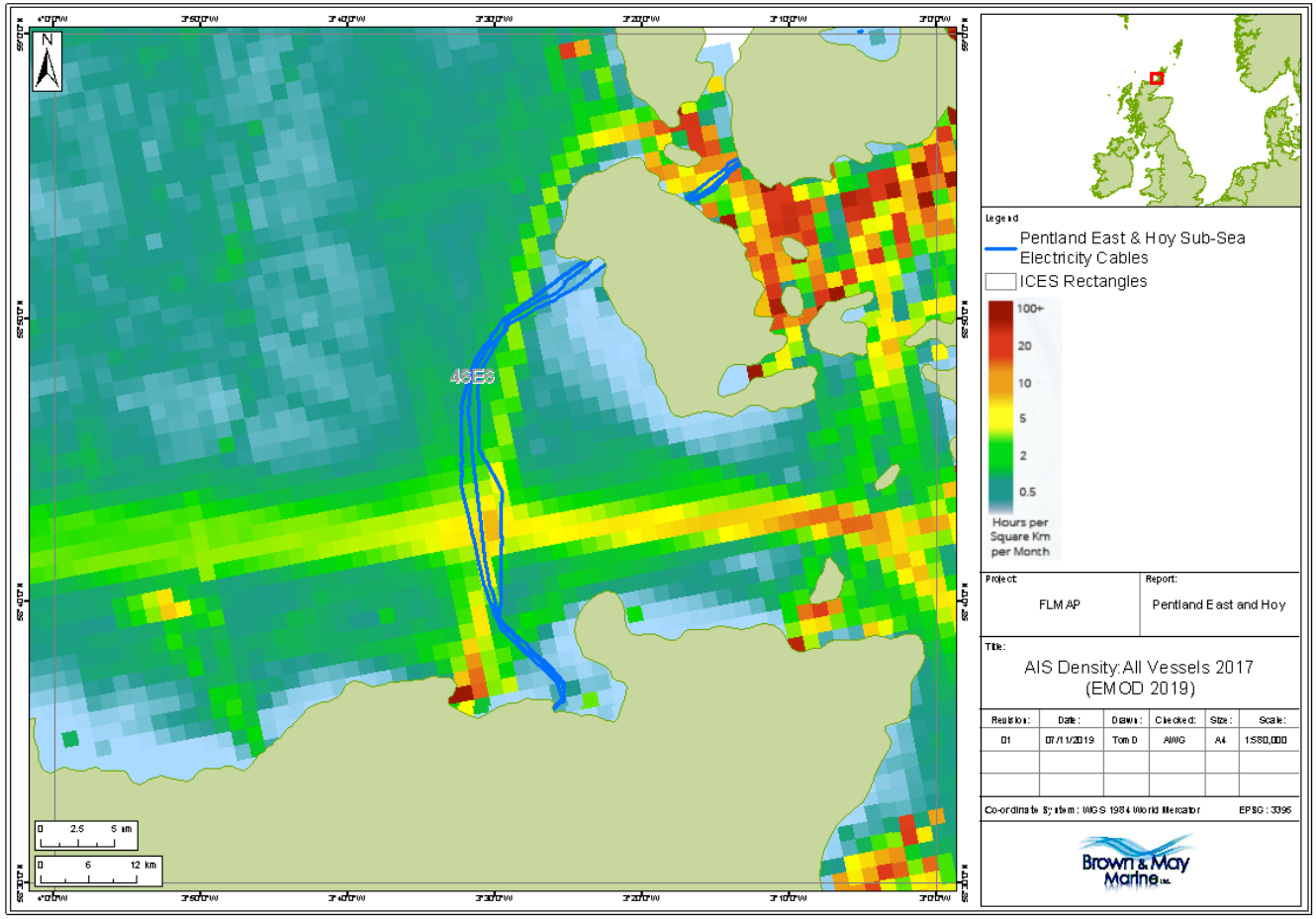

Figure 16 AIS density for all vessels (EMODnet, 2019)

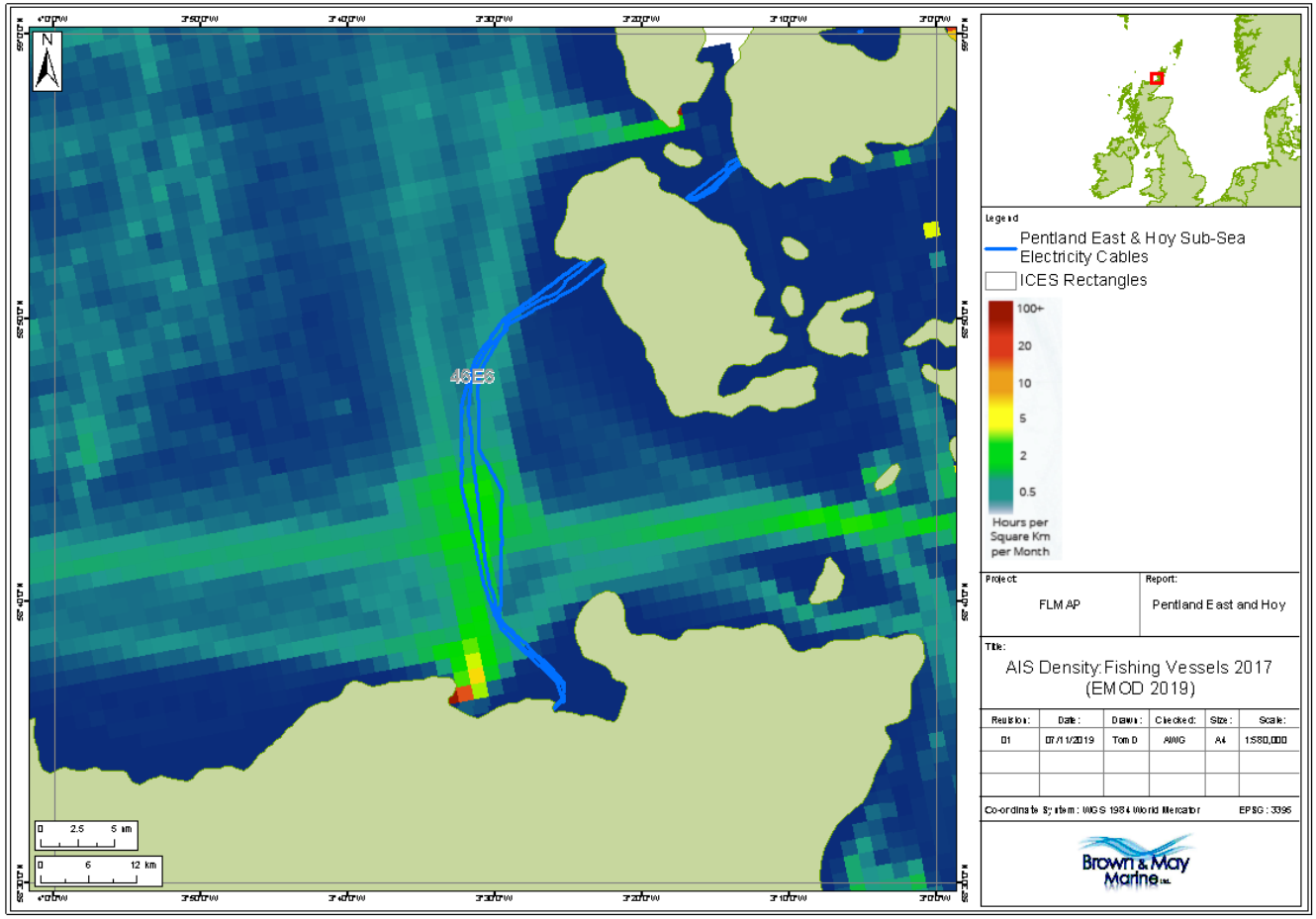

Figure 17 AIS density for fishing vessels (EMODnet, 2019)

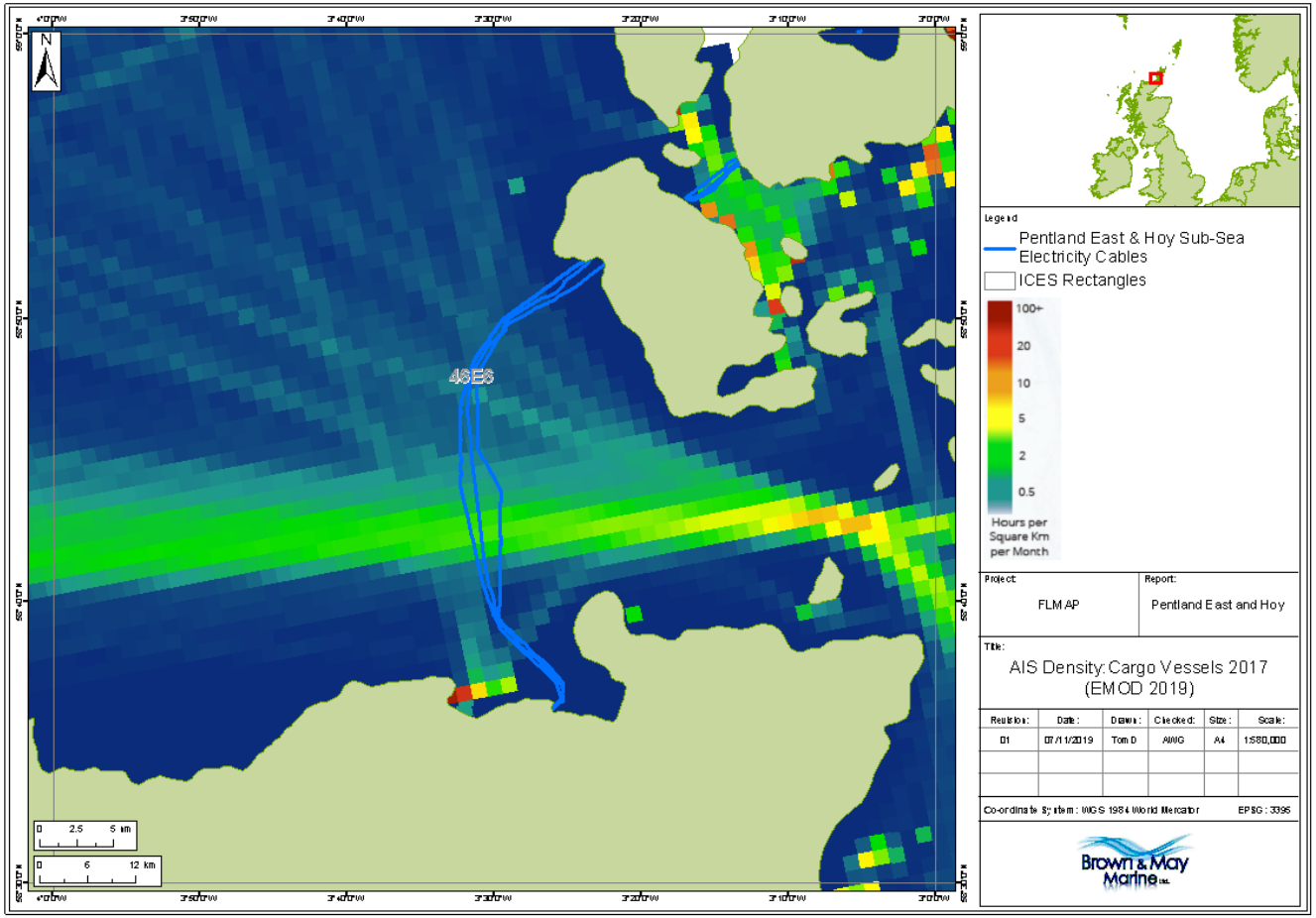

Figure 18 AIS density for cargo vessels (EMODnet, 2019)

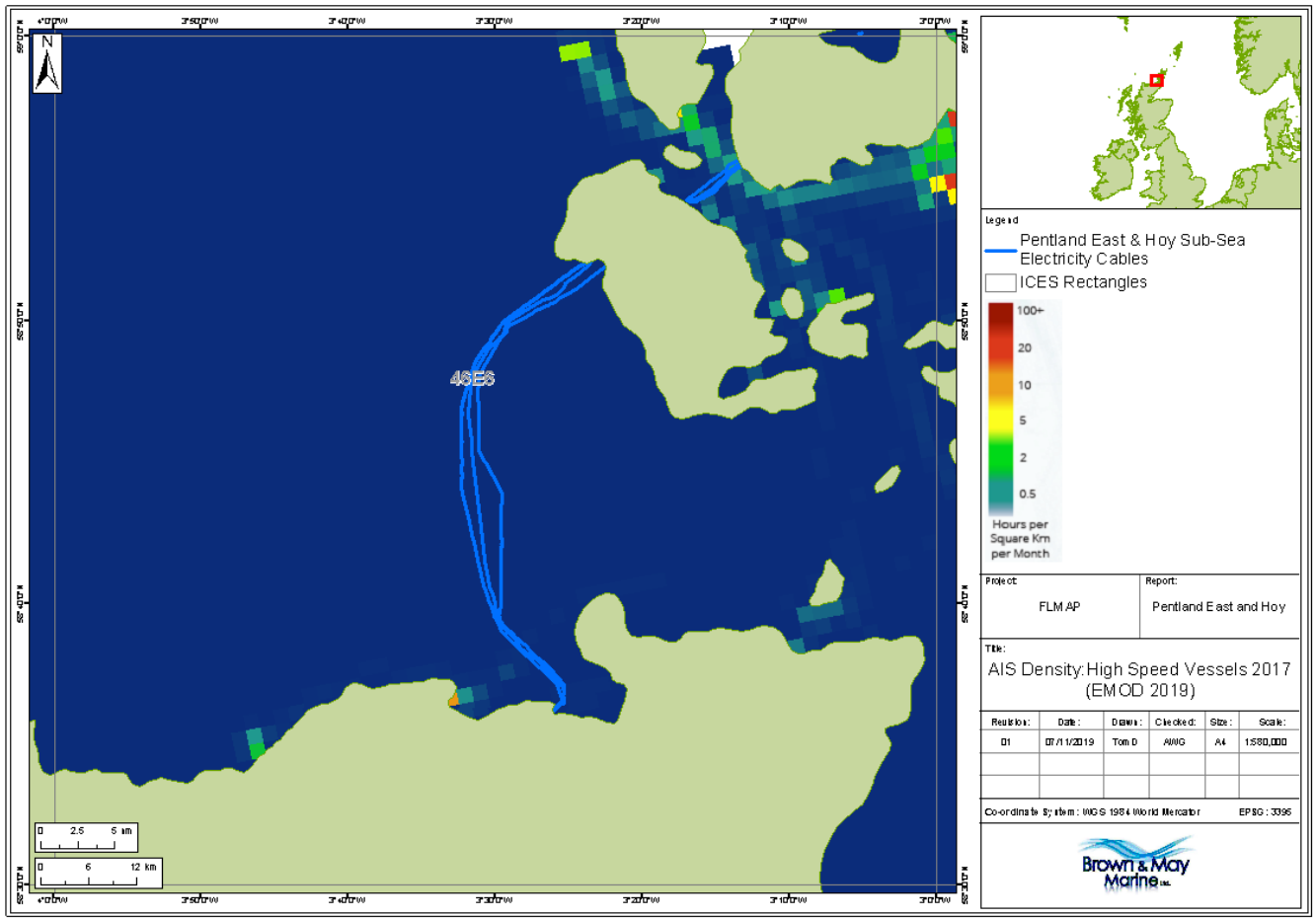

Figure 19 AIS density for high speed vessels (EMODnet, 2019)

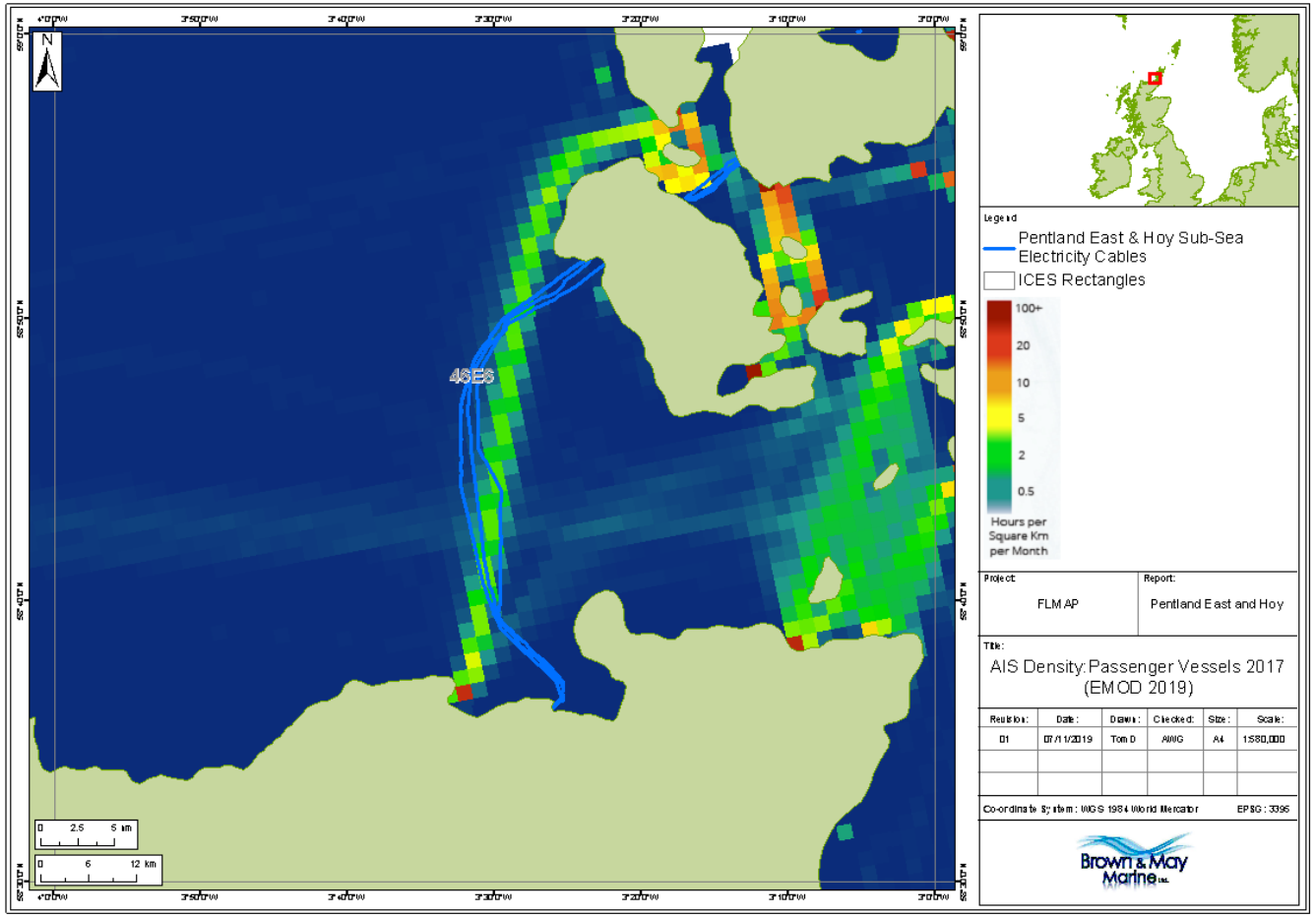

Figure 20 AIS density for passenger vessels (EMODnet, 2019)

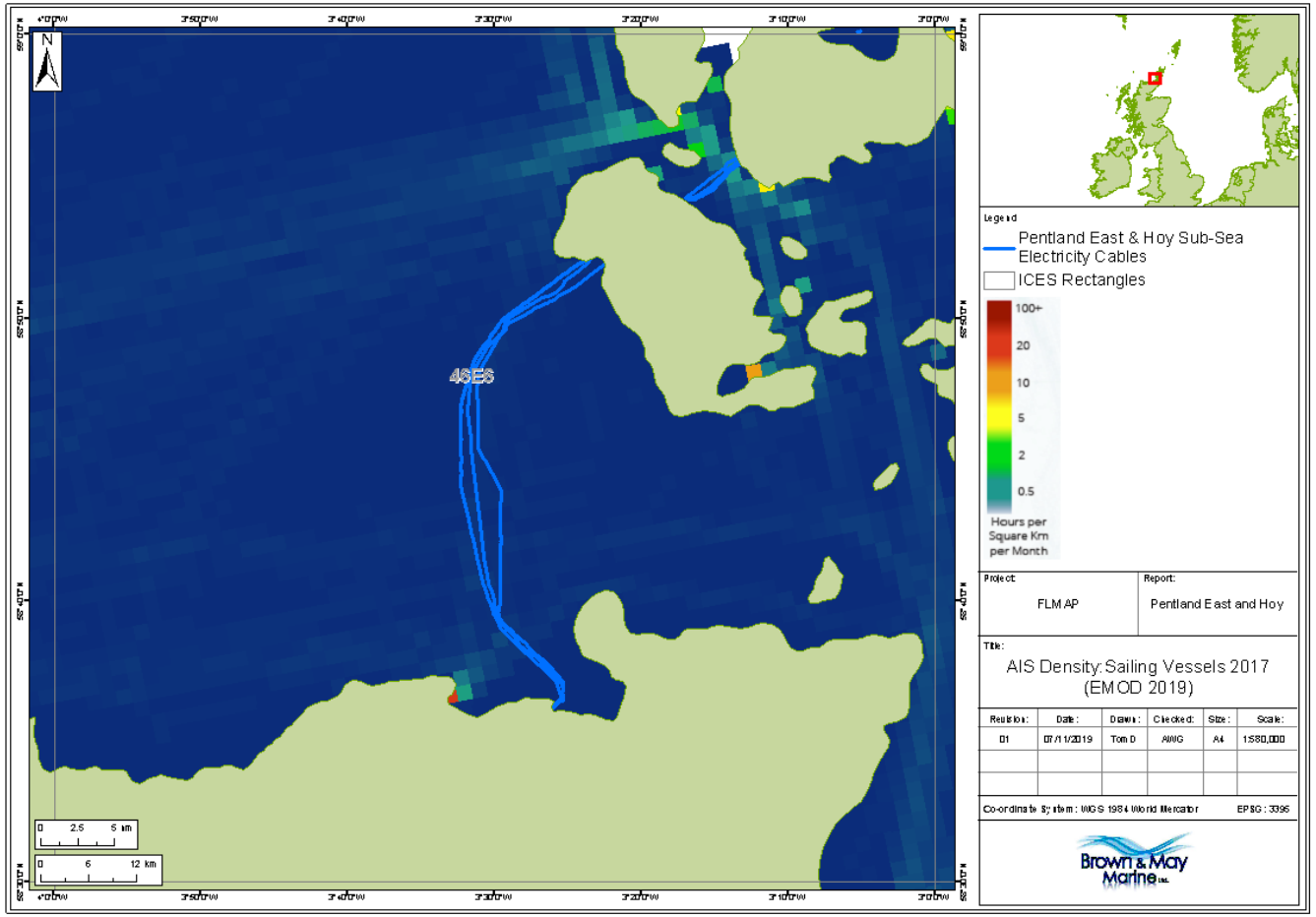

Figure 21 AIS density for sailing vessels (EMODnet, 2019)

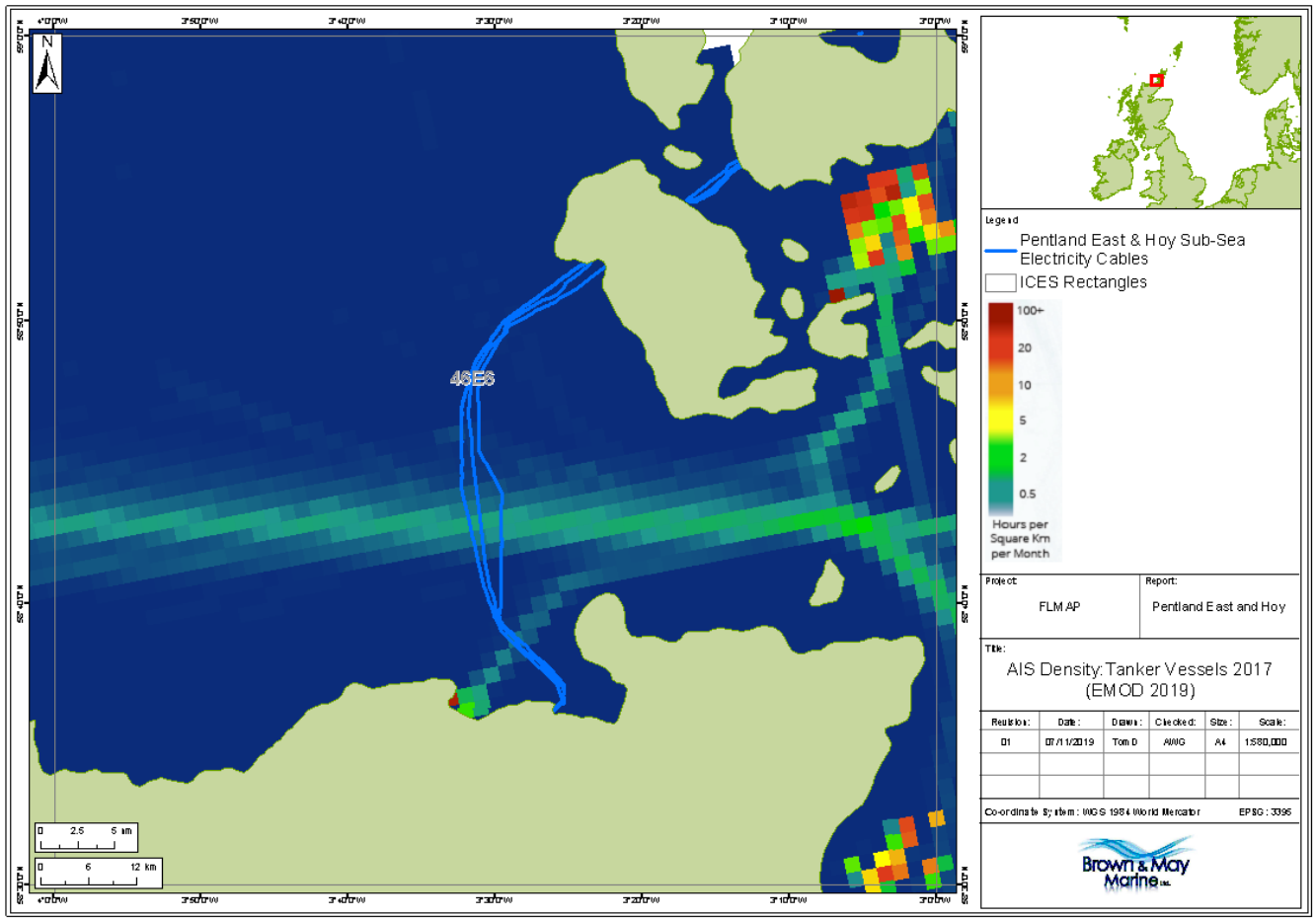

Figure 22 AIS density for tankers (EMODnet, 2019)

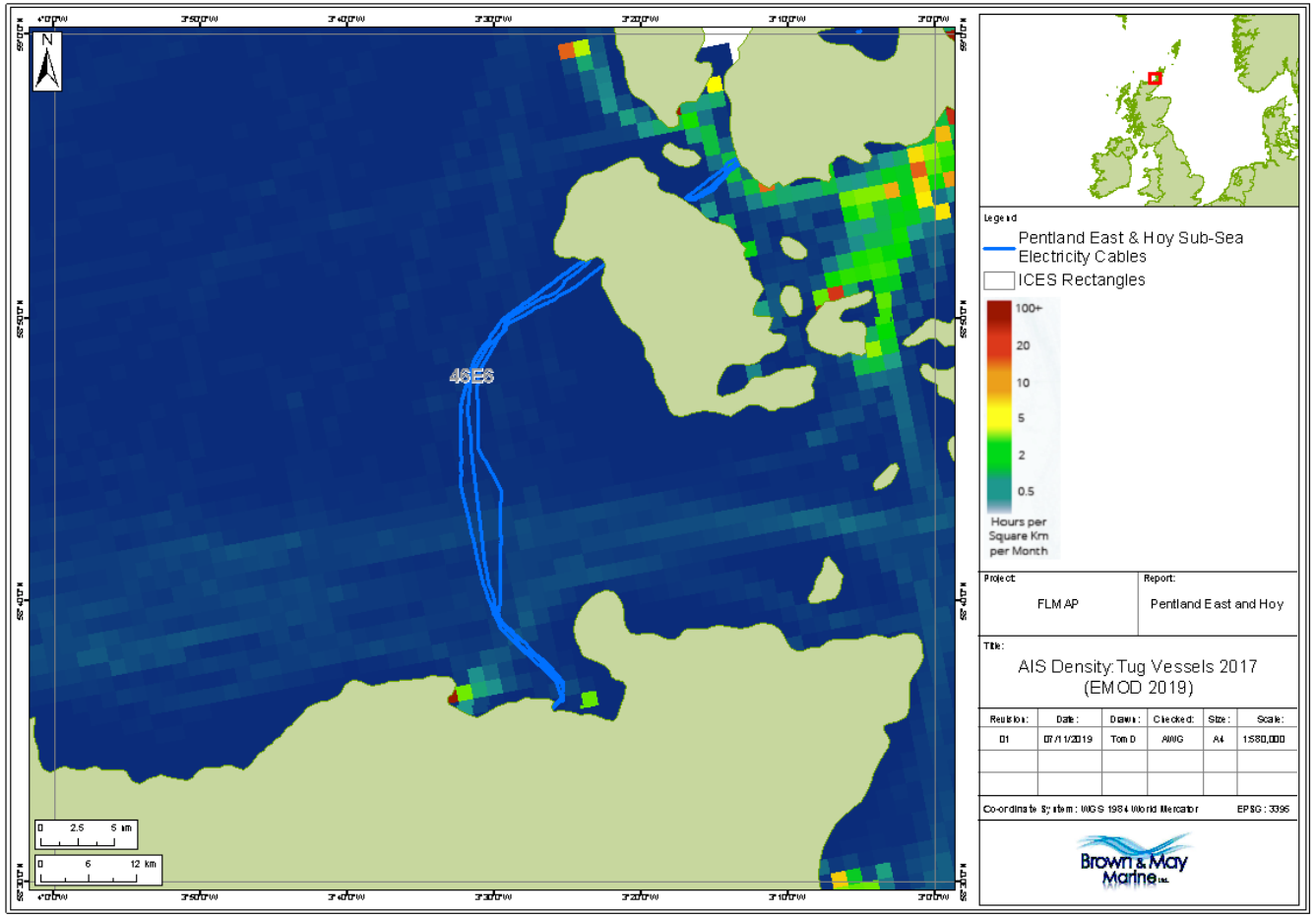

Figure 23 AIS density for tugs (EMODnet, 2019)

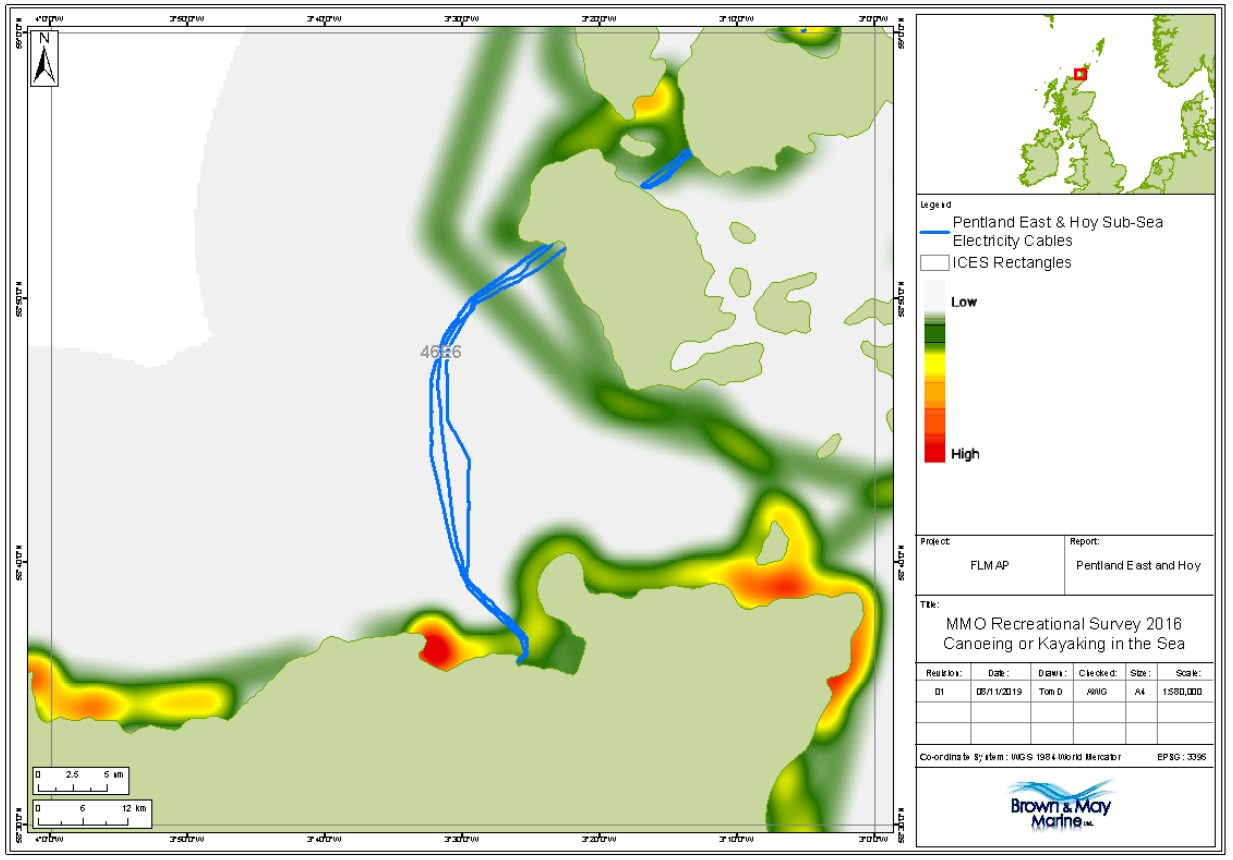

Figure 24 Canoeing and kayaking (Marine Scotland 2018)

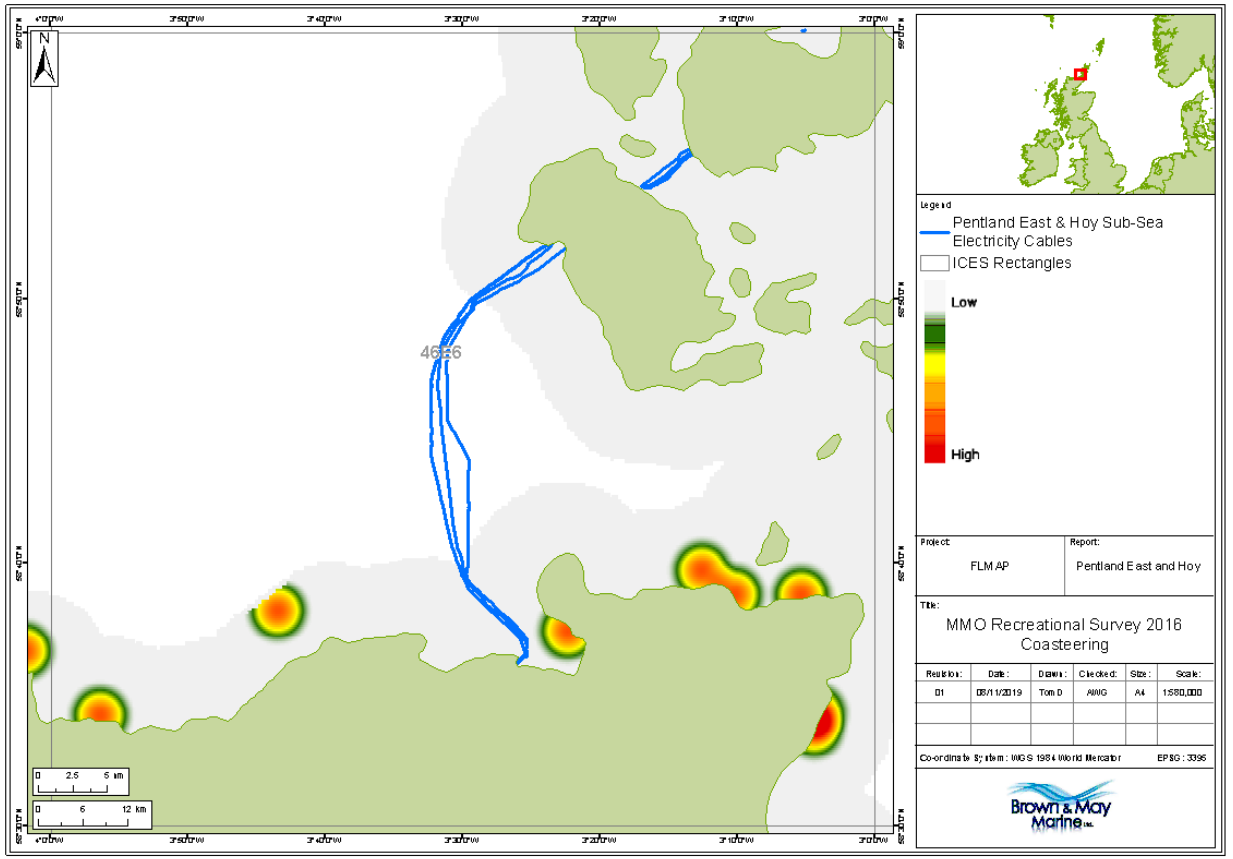

Figure 25 Coasteering activity (Marine Scotland 2018)

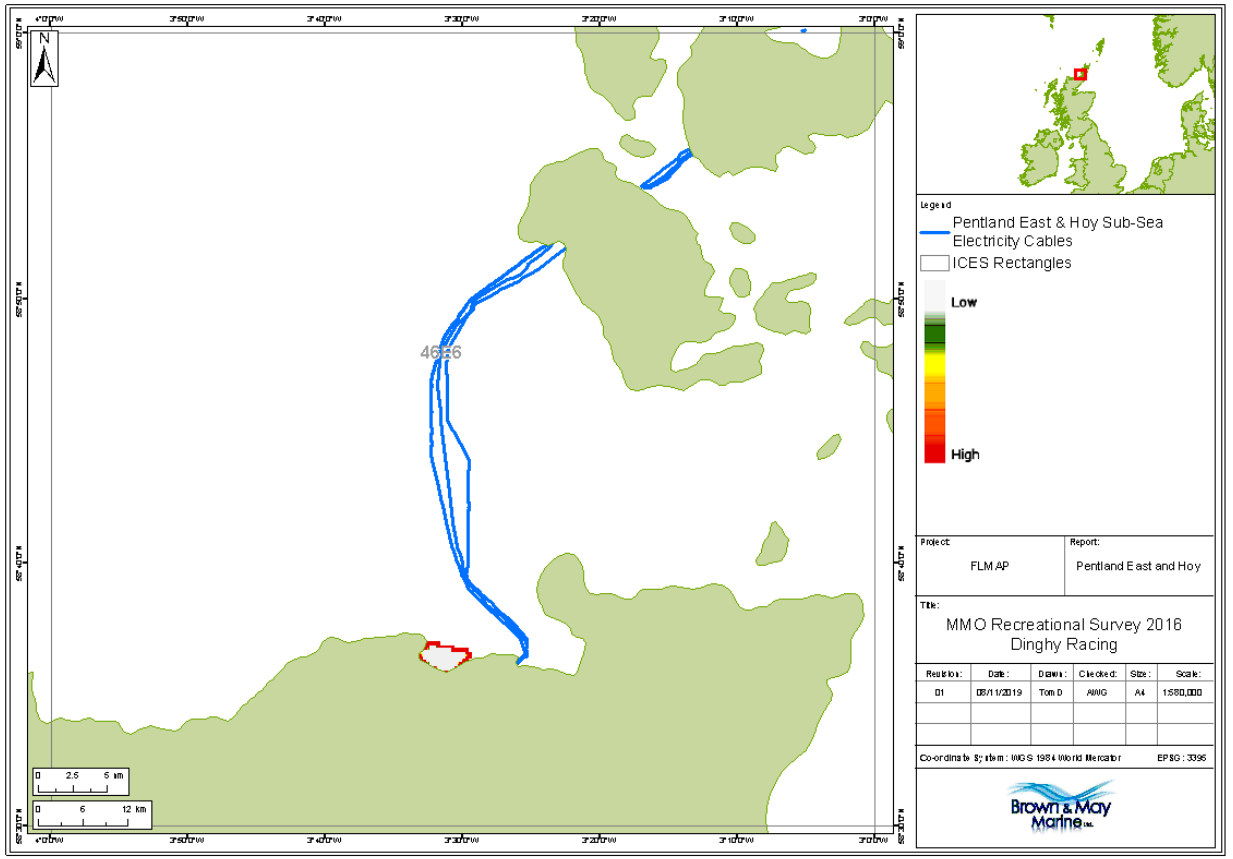

Figure 26 Dinghy racing (Marine Scotland 2018)

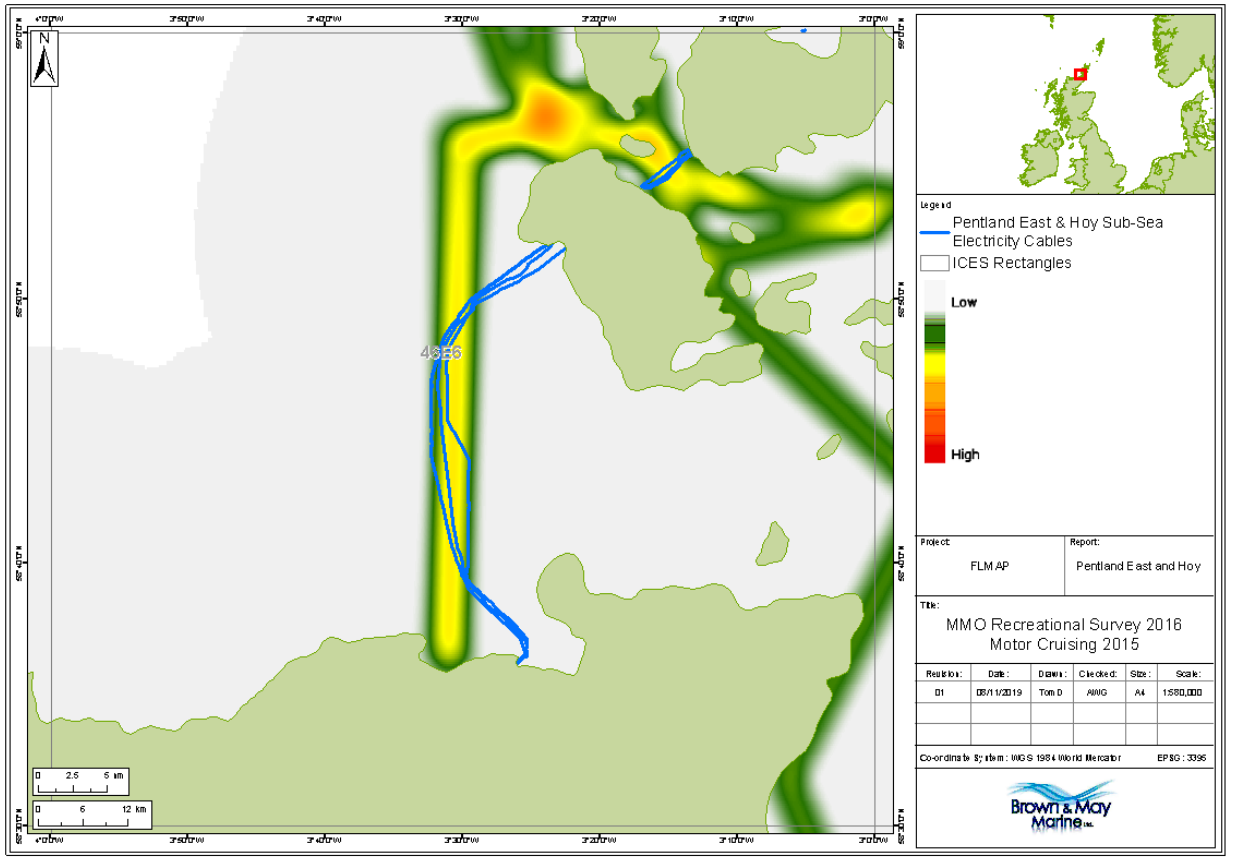

Figure 27 Motor cruising (Marine Scotland 2018)

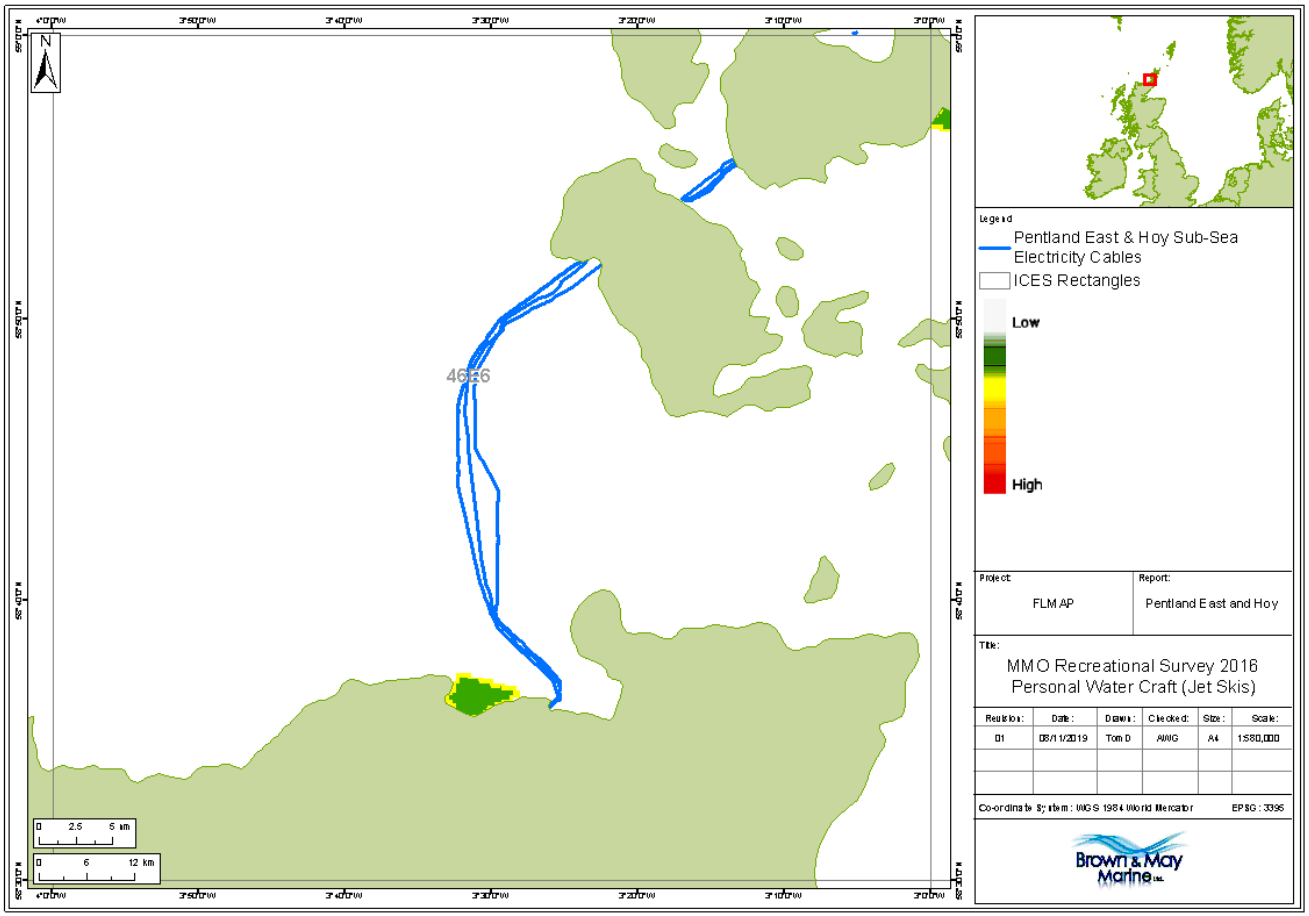

Figure 28 Personal water craft (jet skis) (Marine Scotland 2018)

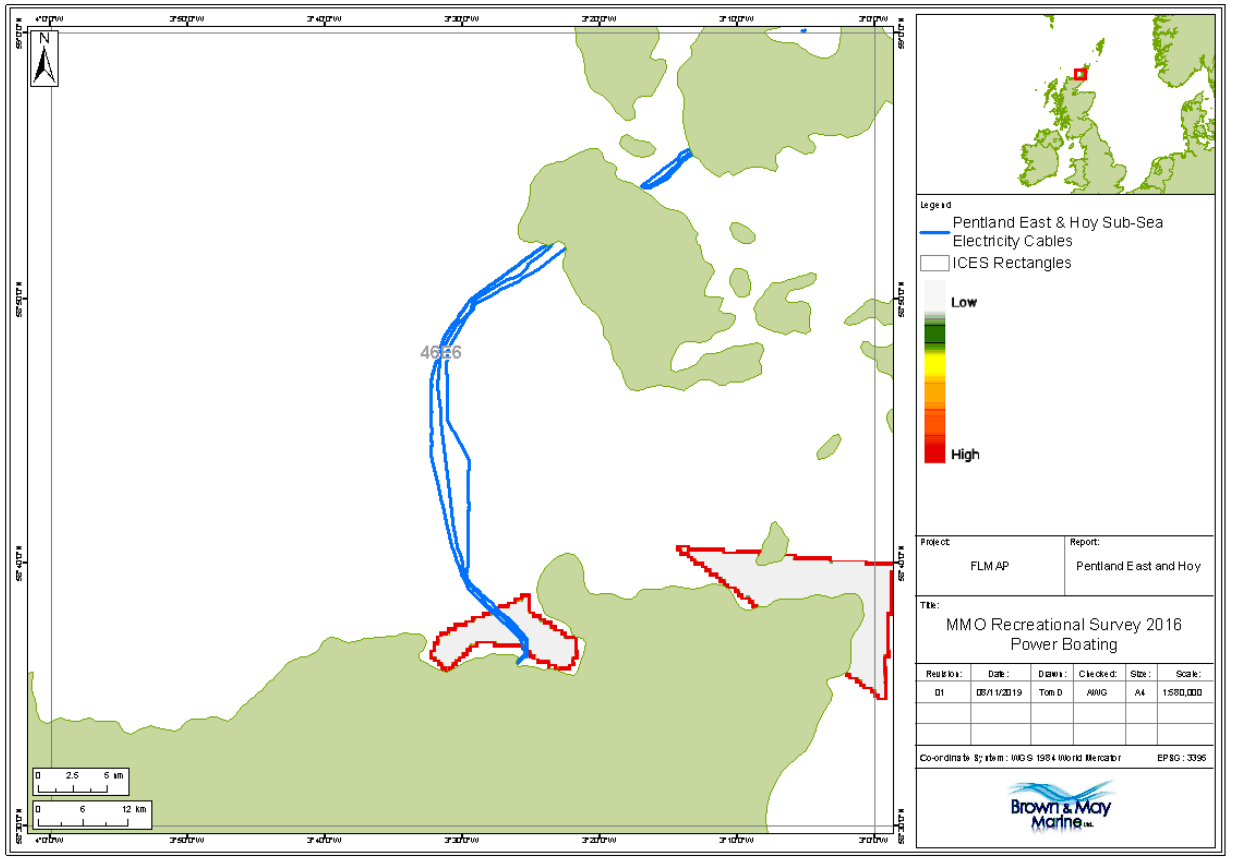

Figure 29 Power boating (Marine Scotland 2018)

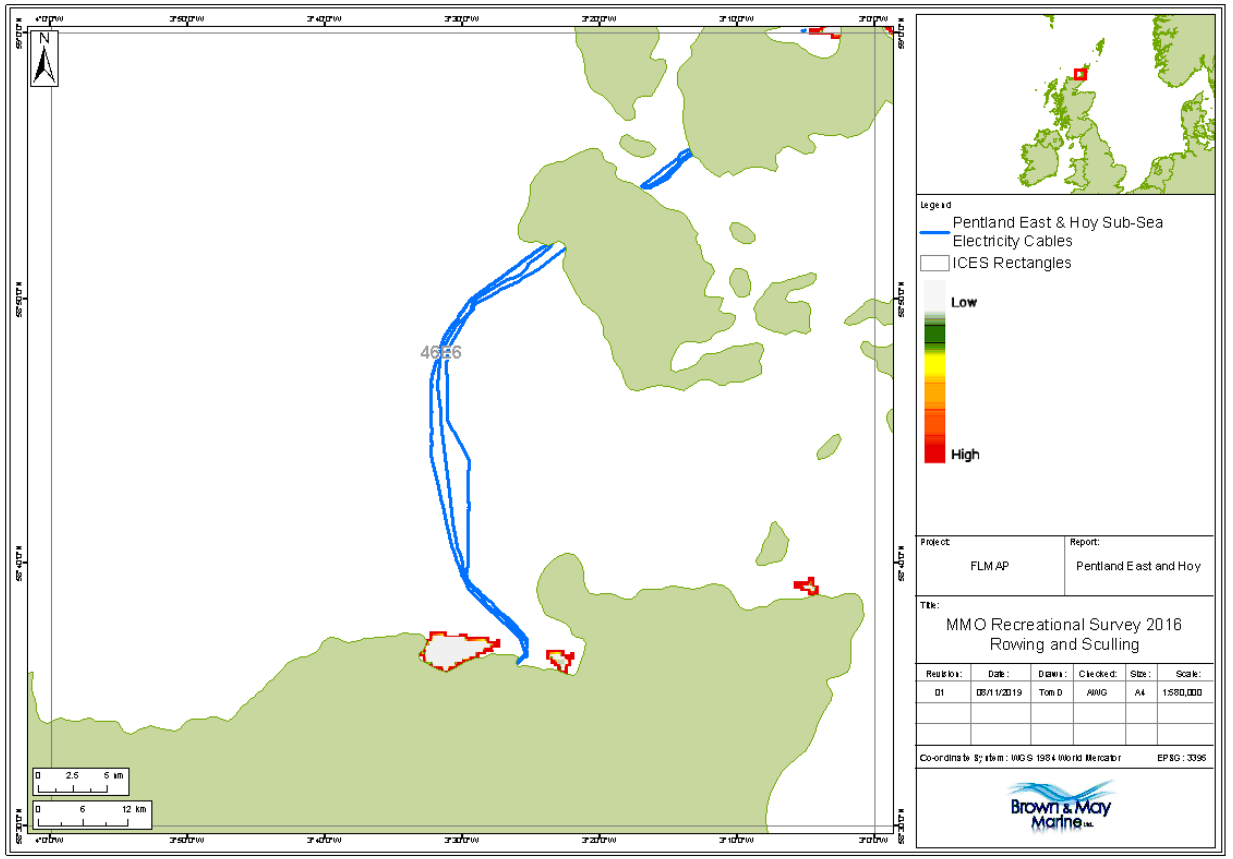

Figure 30 Rowing and sculling (Marine Scotland 2018)

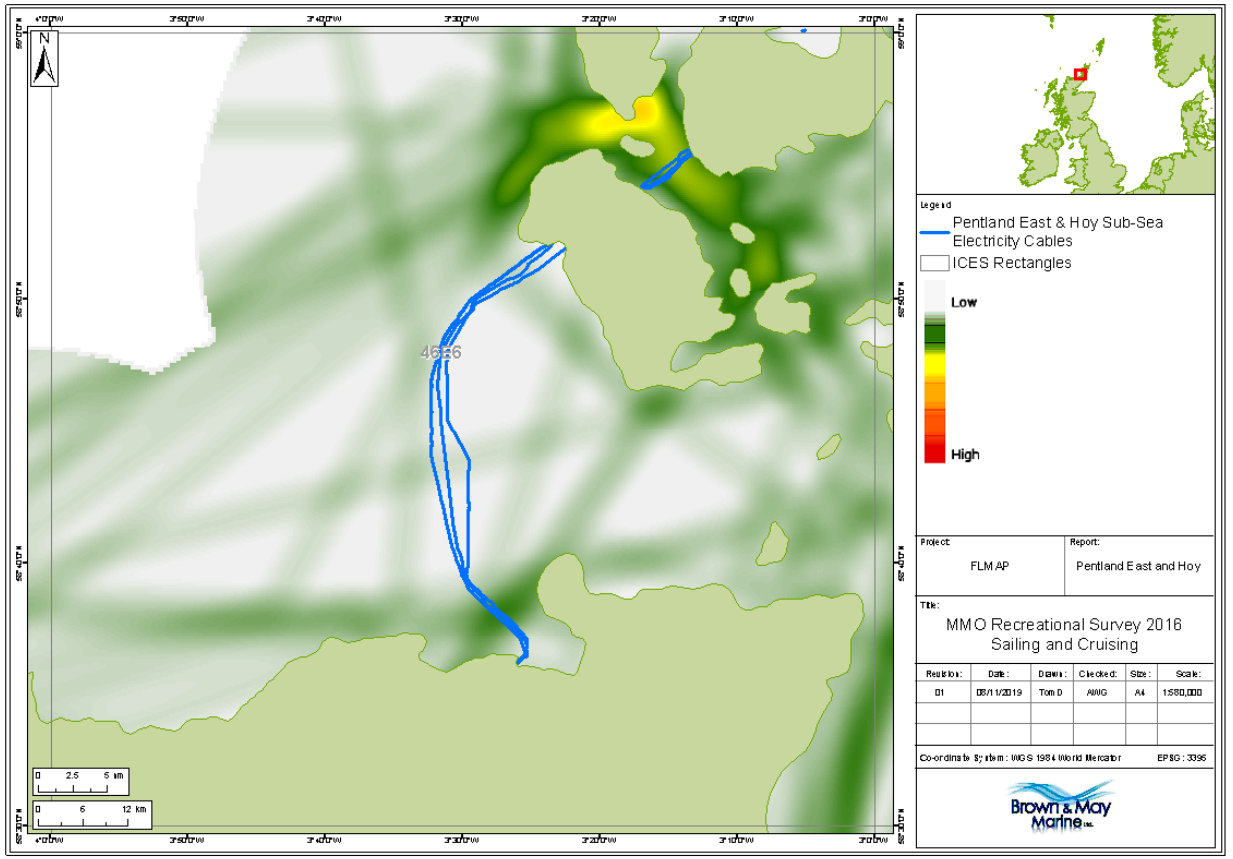

Figure 31 Sailing and cruising (Marine Scotland 2018)

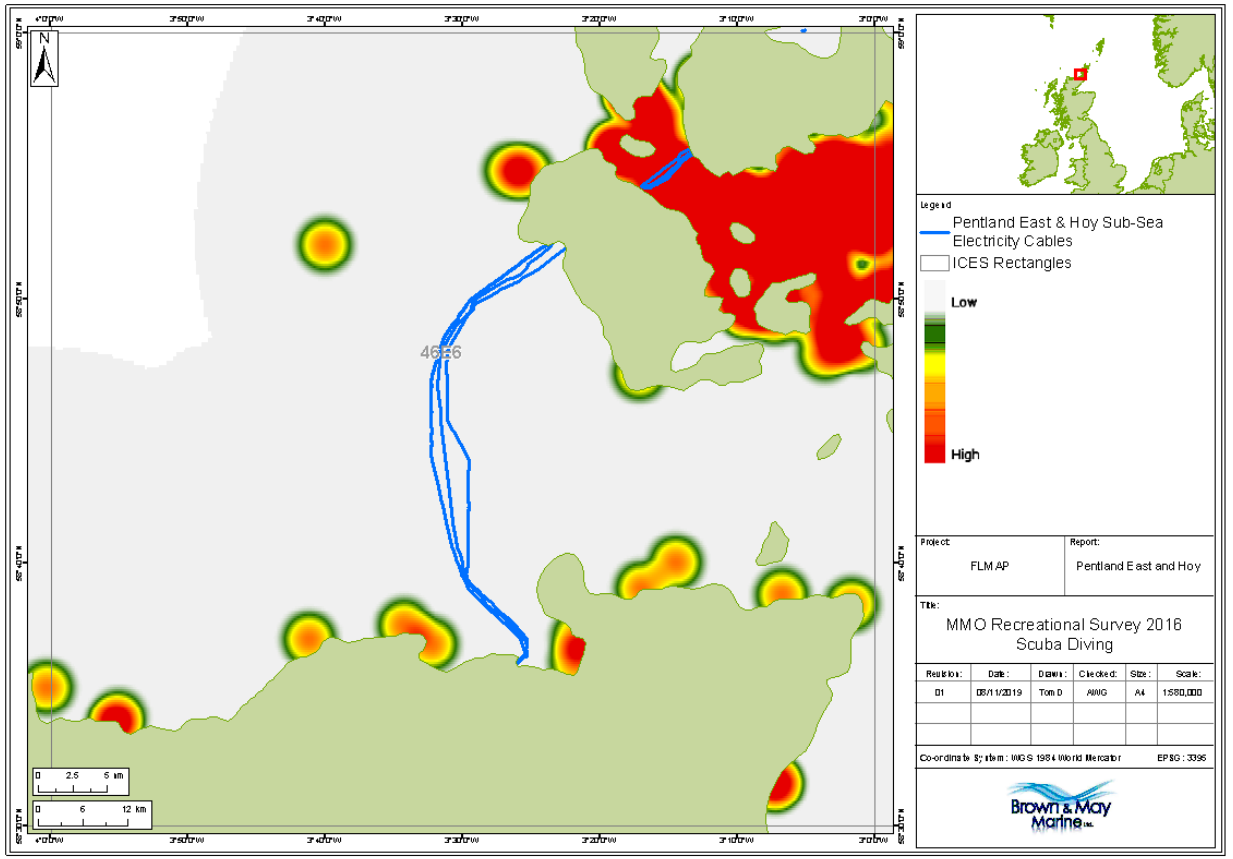

Figure 32 Scuba diving (Marine Scotland 2018)

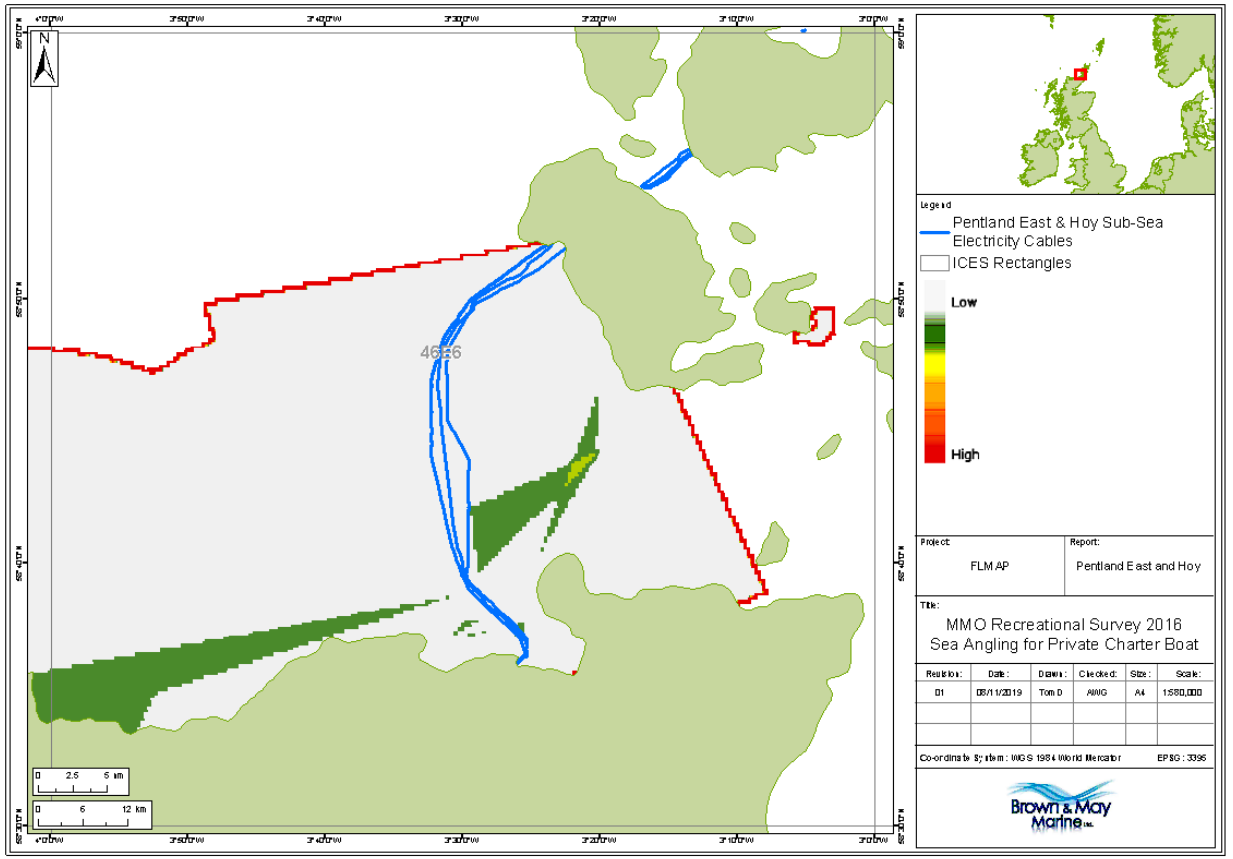

Figure 33 Sea angling from a charter boat (Marine Scotland 2018)

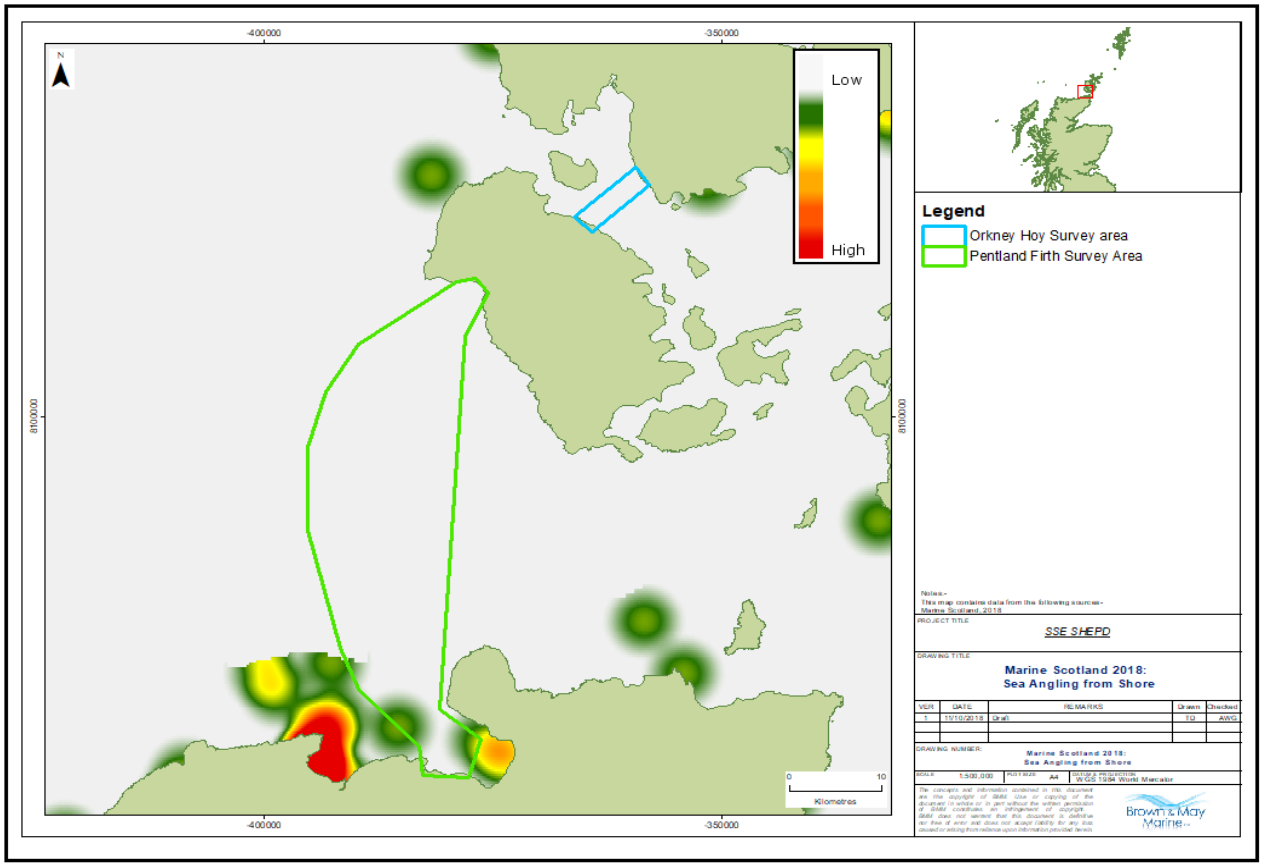

Figure 34 Sea angling from shore (Marine Scotland 2018)

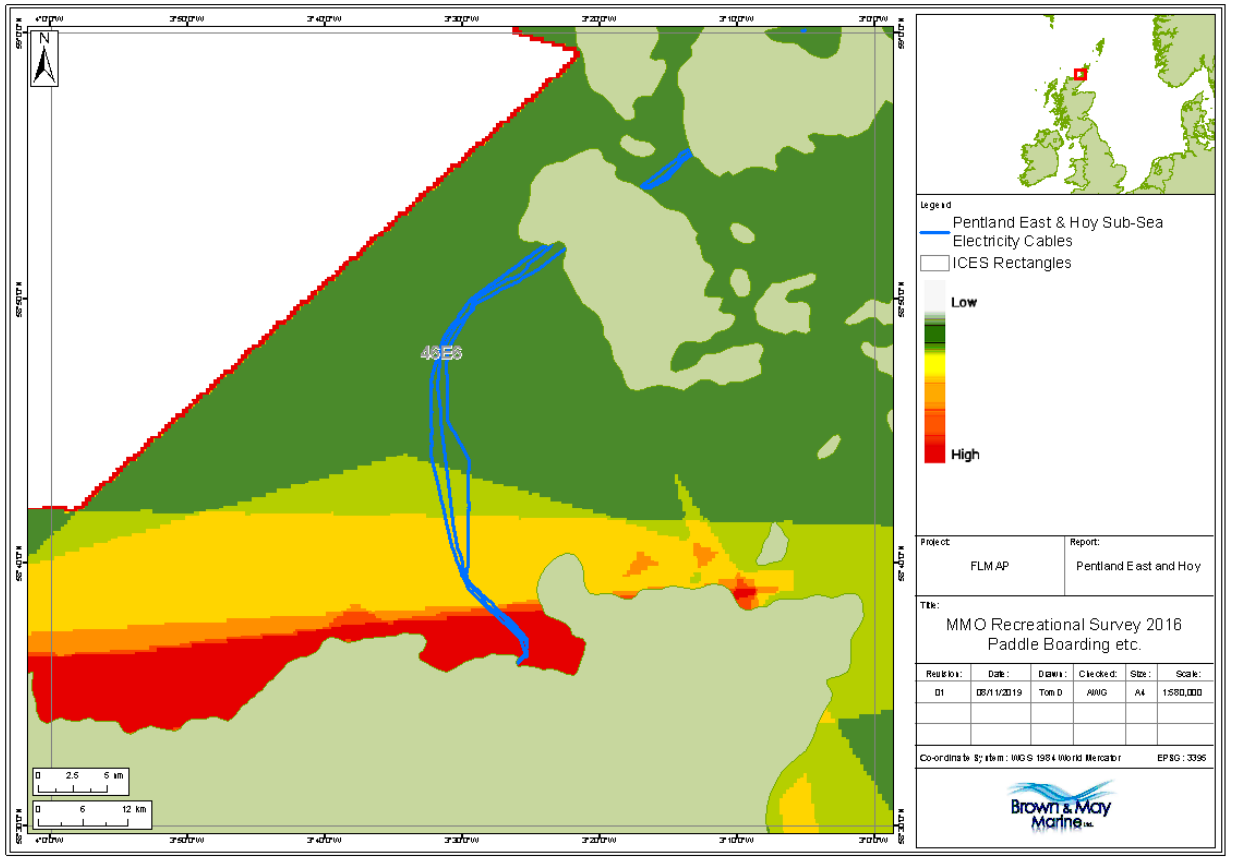

Figure 35 Surfing, paddle boarding etc. (Marine Scotland, 2018)

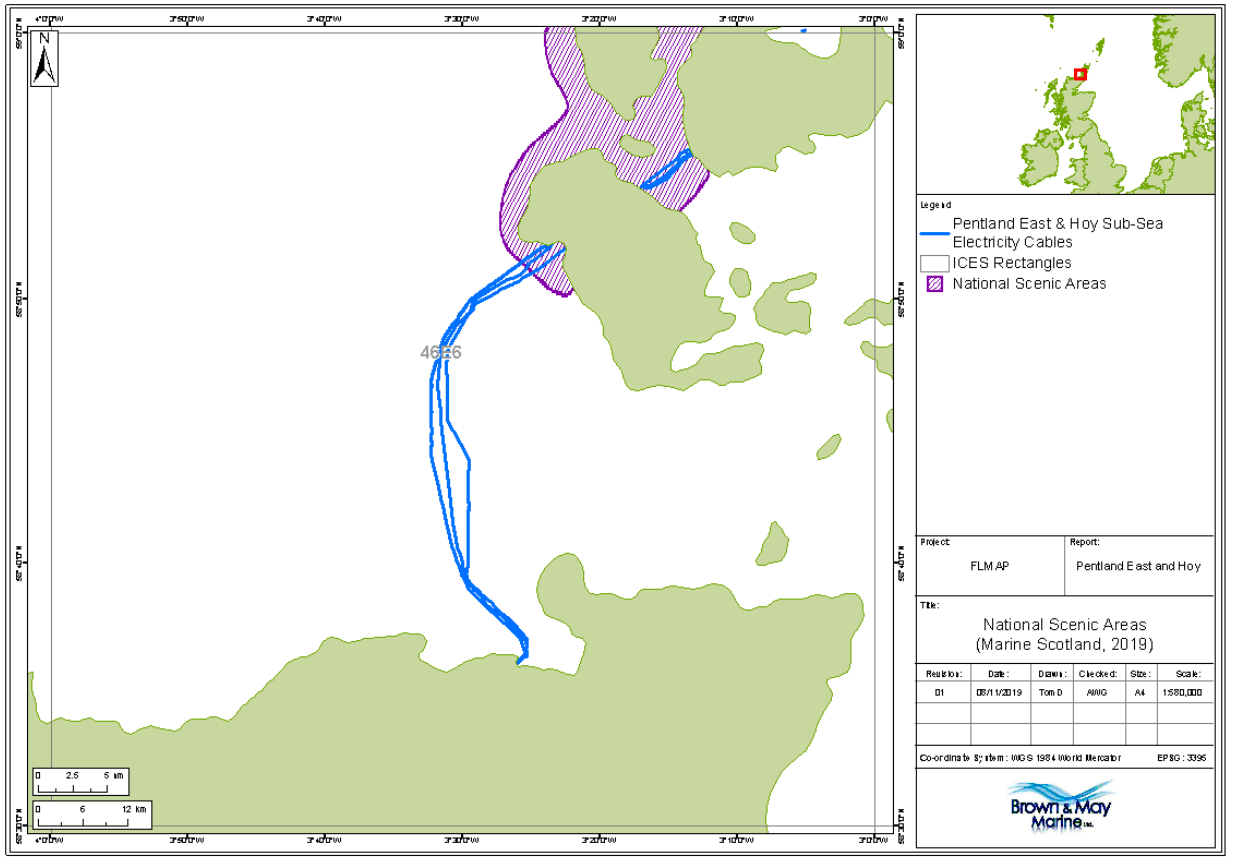

Figure 36 National Scenic Area coastal sites (Marine Scotland 2018)

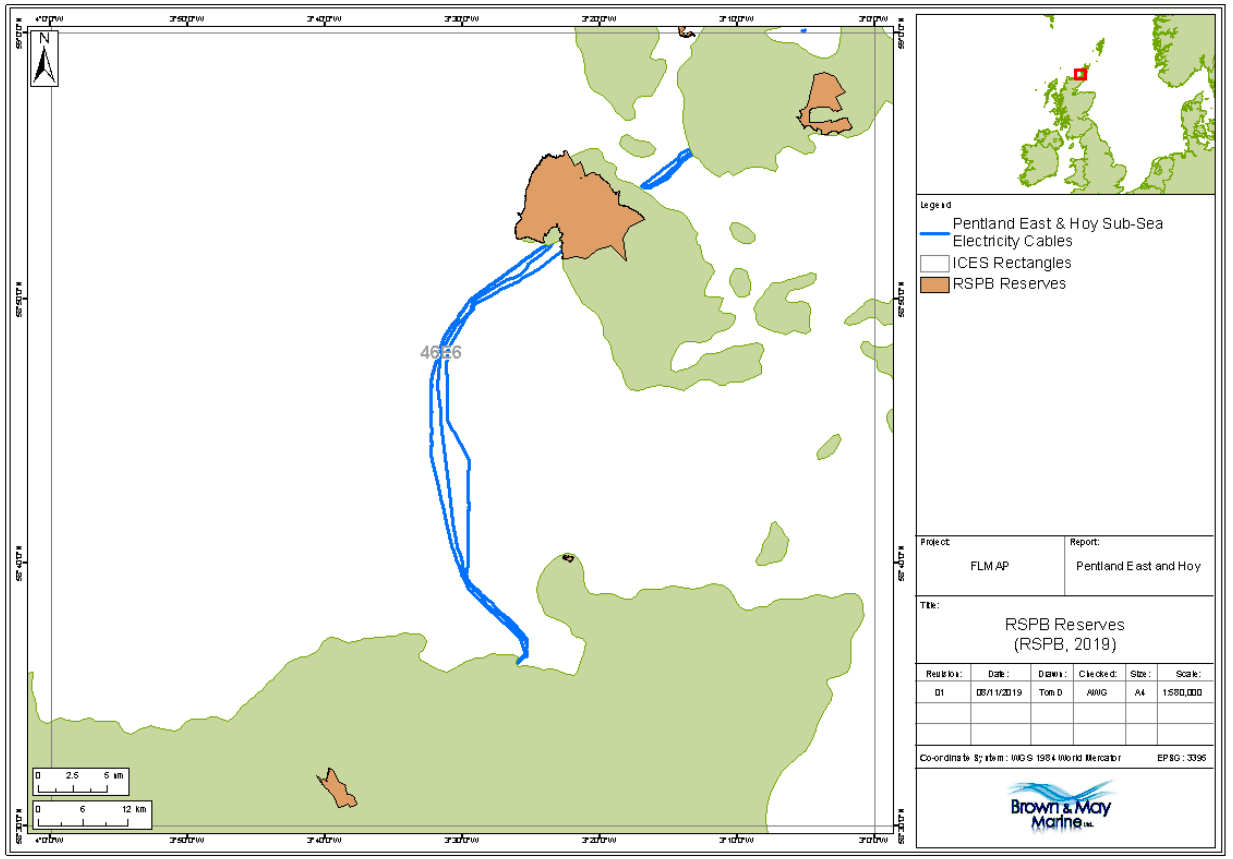

Figure 37 RSPB reserves (Royal Society for the Protection of Birds 2019)

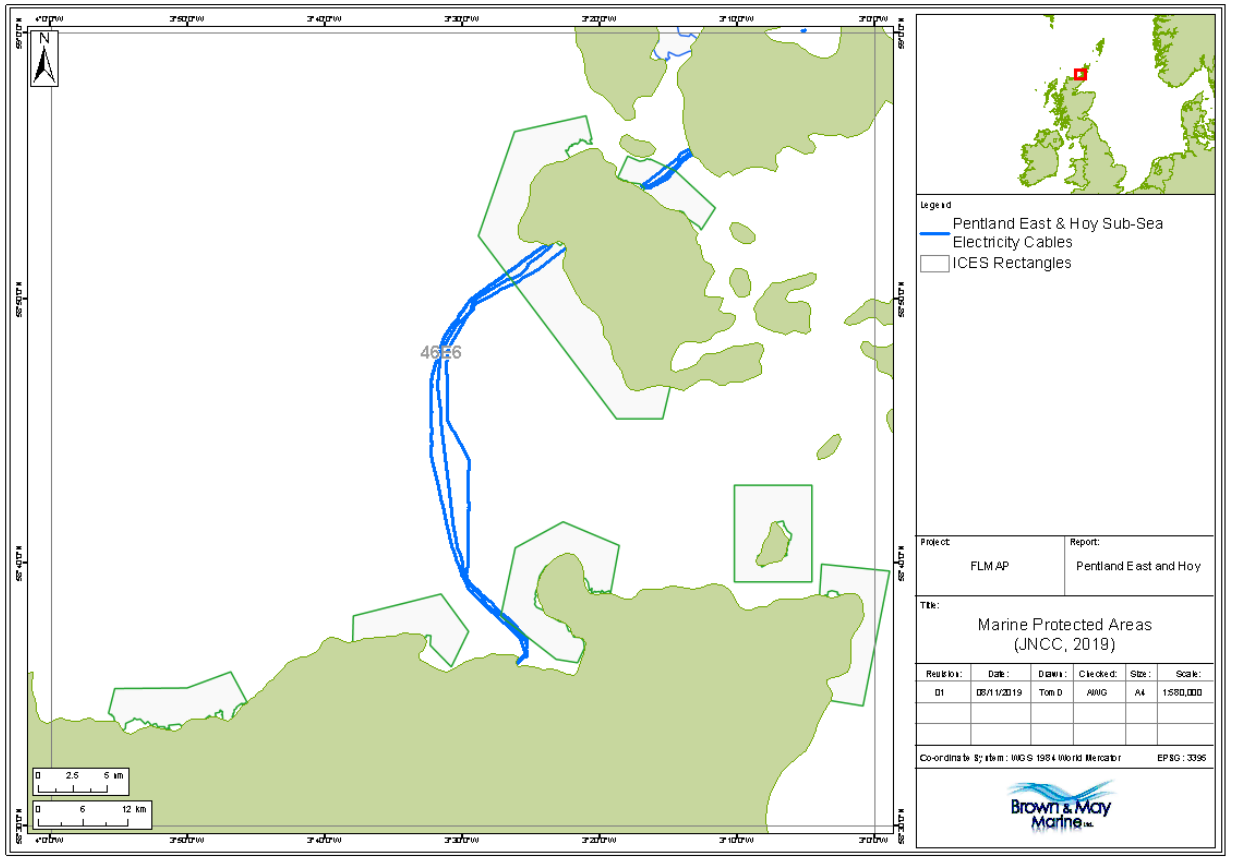

Figure 38 SPA with Marine Components (JNCC 2019)

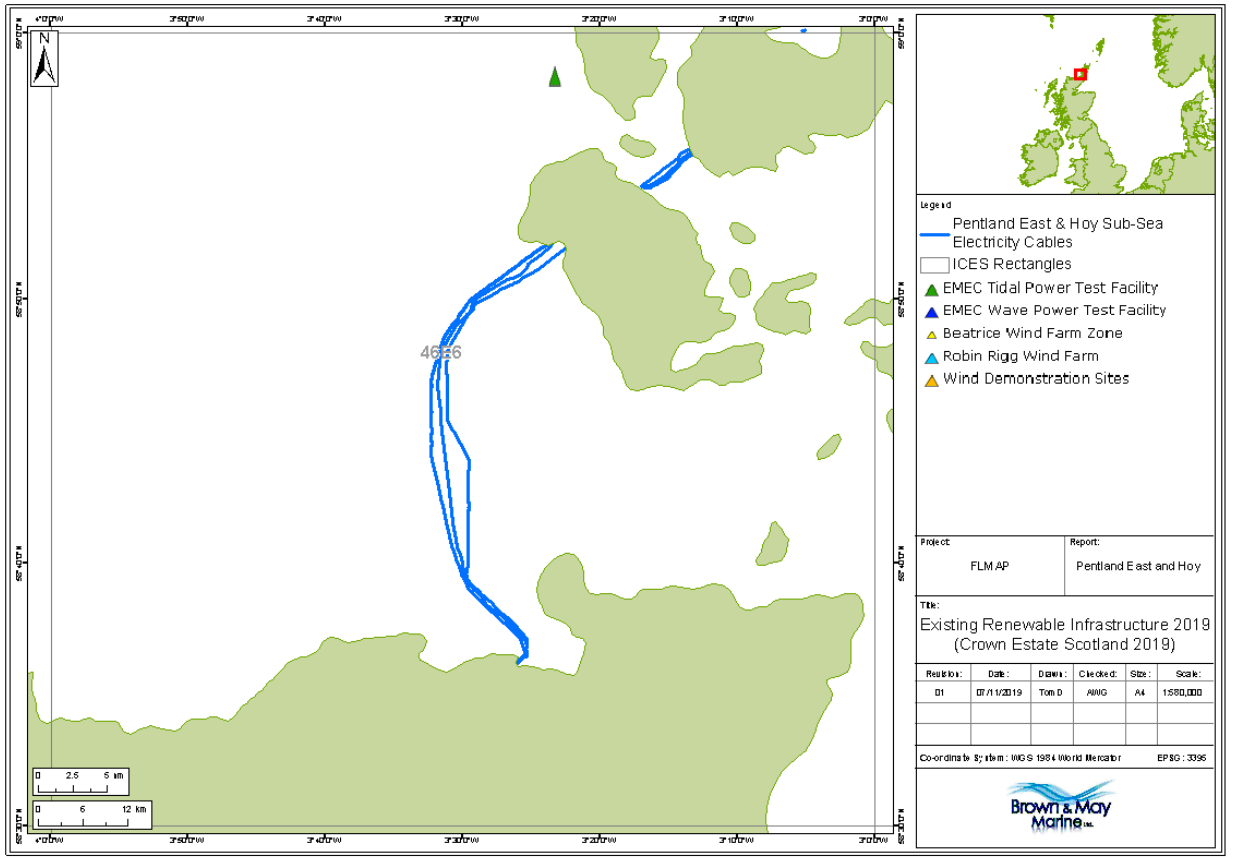

Figure 39 Renewable energy developments (Crown Estate Scotland 2019)

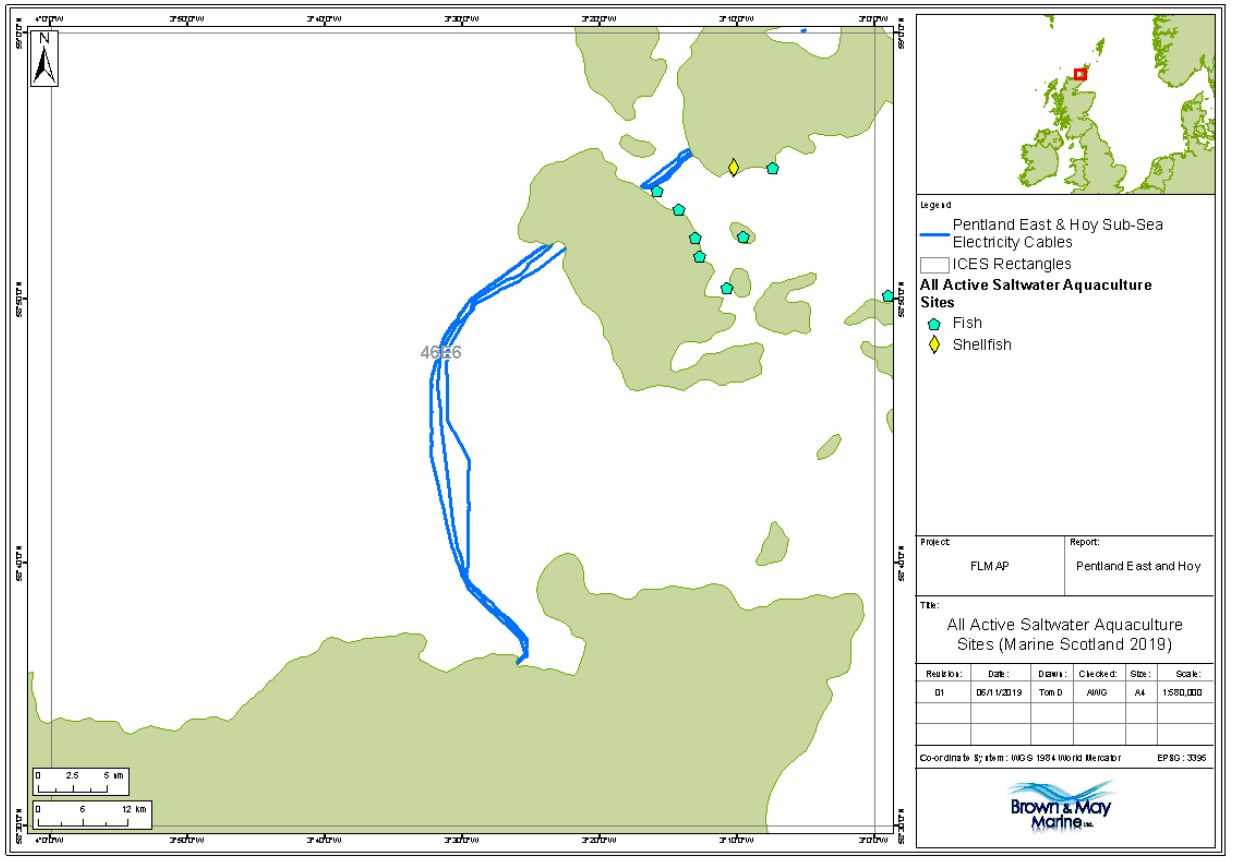

Figure 40 Active saltwater aquaculture sites (Marine Scotland 2019)

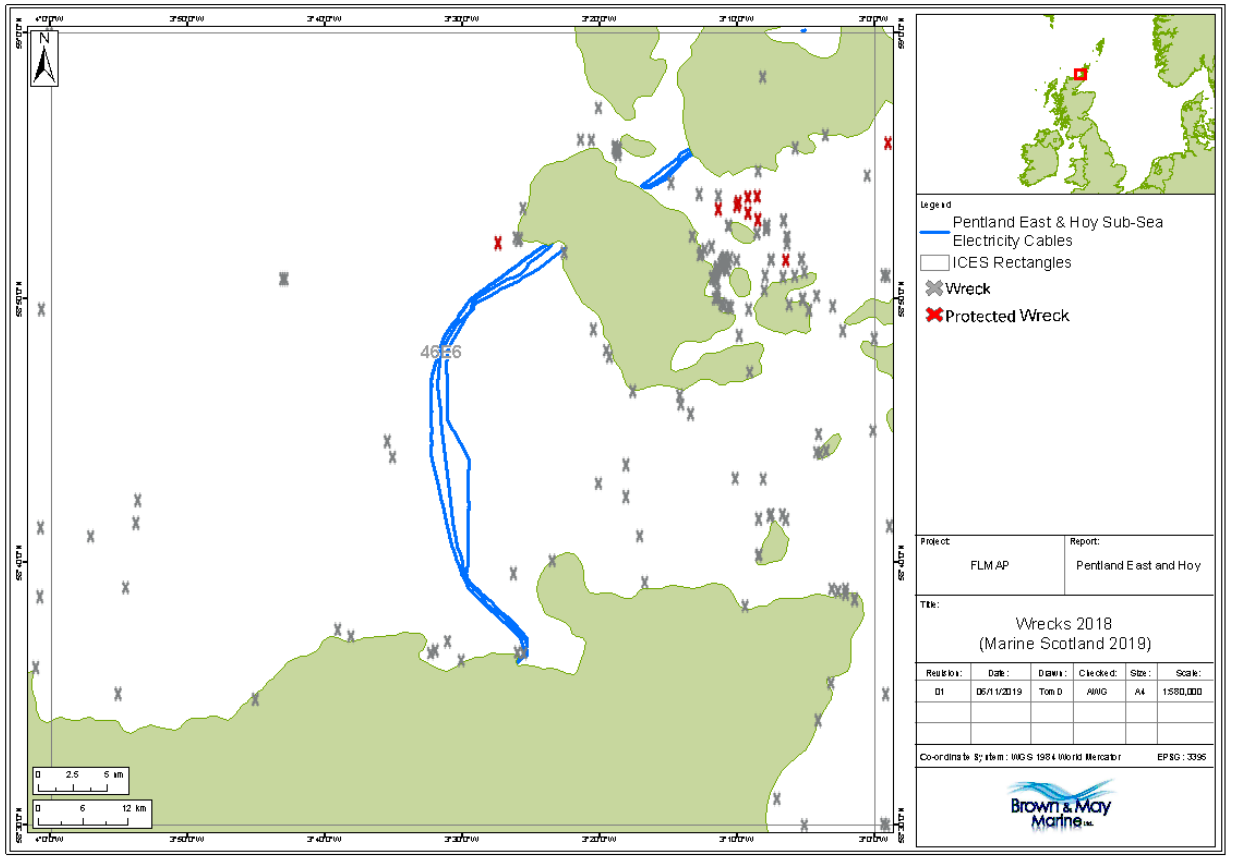

Figure 41 Known wreck sites (Marine Scotland 2019)

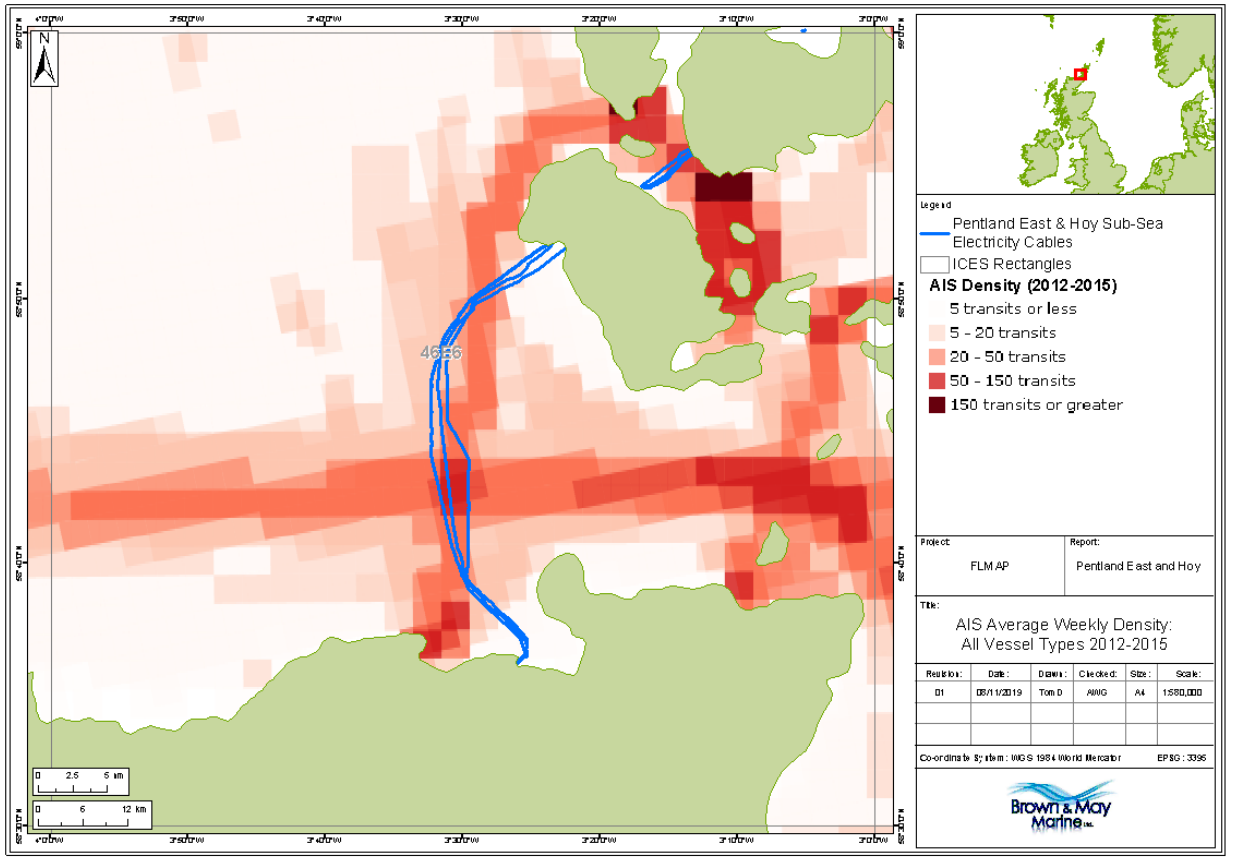

Figure 42 AIS all vessel types 2012-2015 (Marine Scotland 2017)

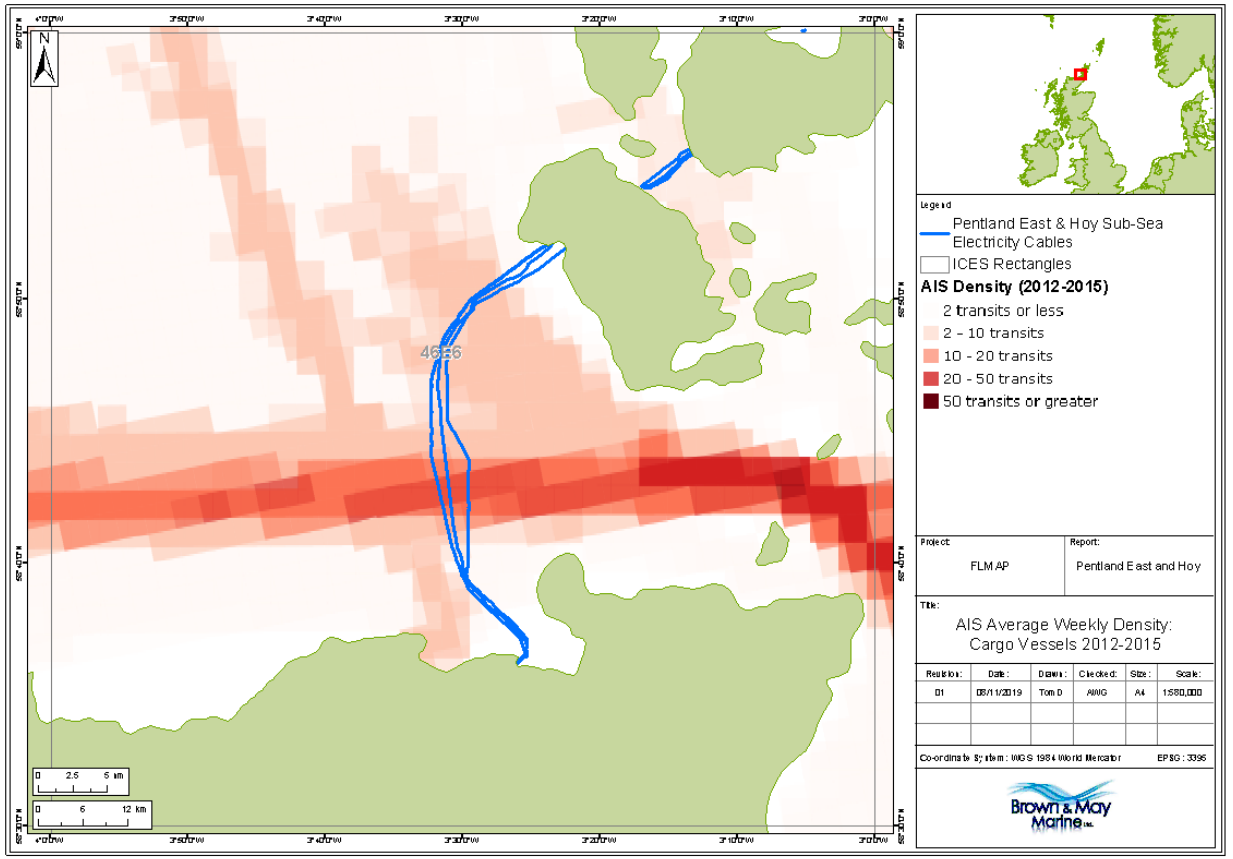

Figure 43 AIS cargo vessels 2012-2015 (Marine Scotland 2017)

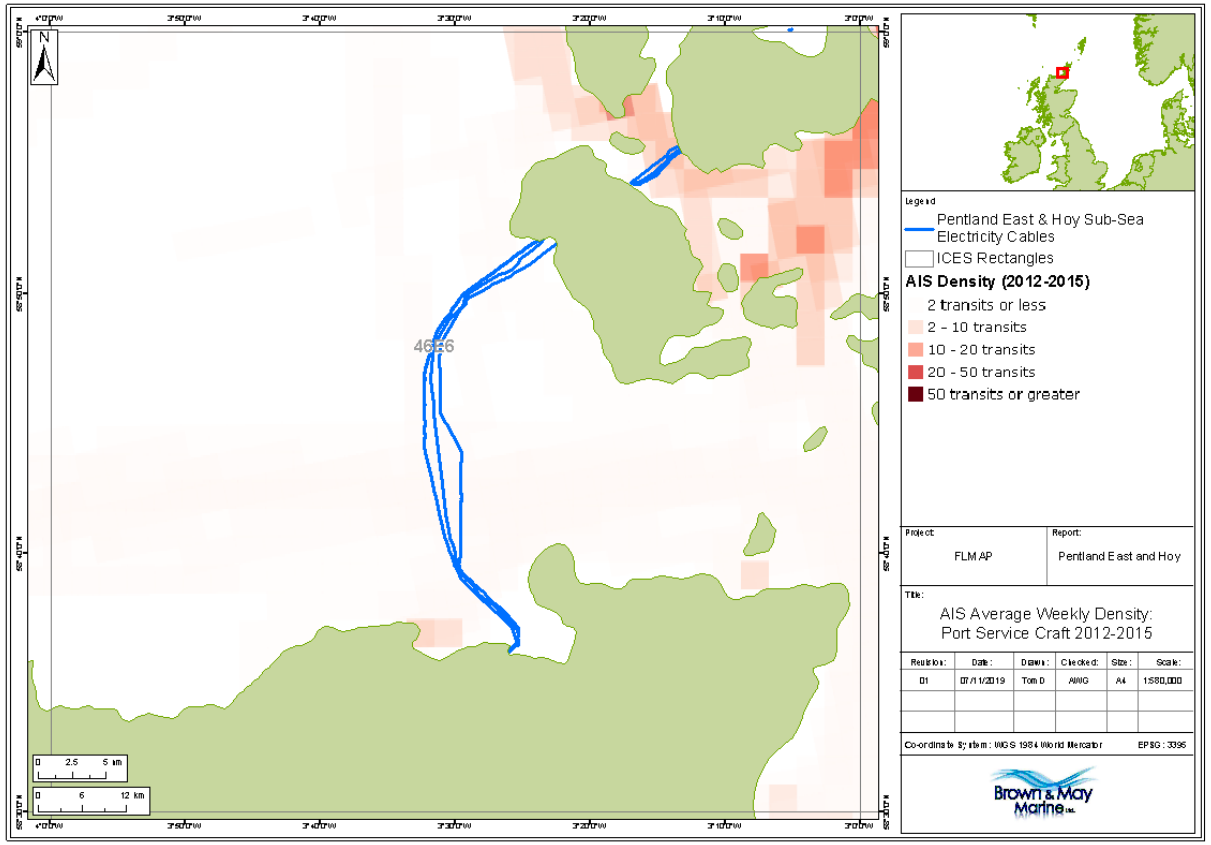

Figure 44 Port service craft (Marine Scotland 2017)

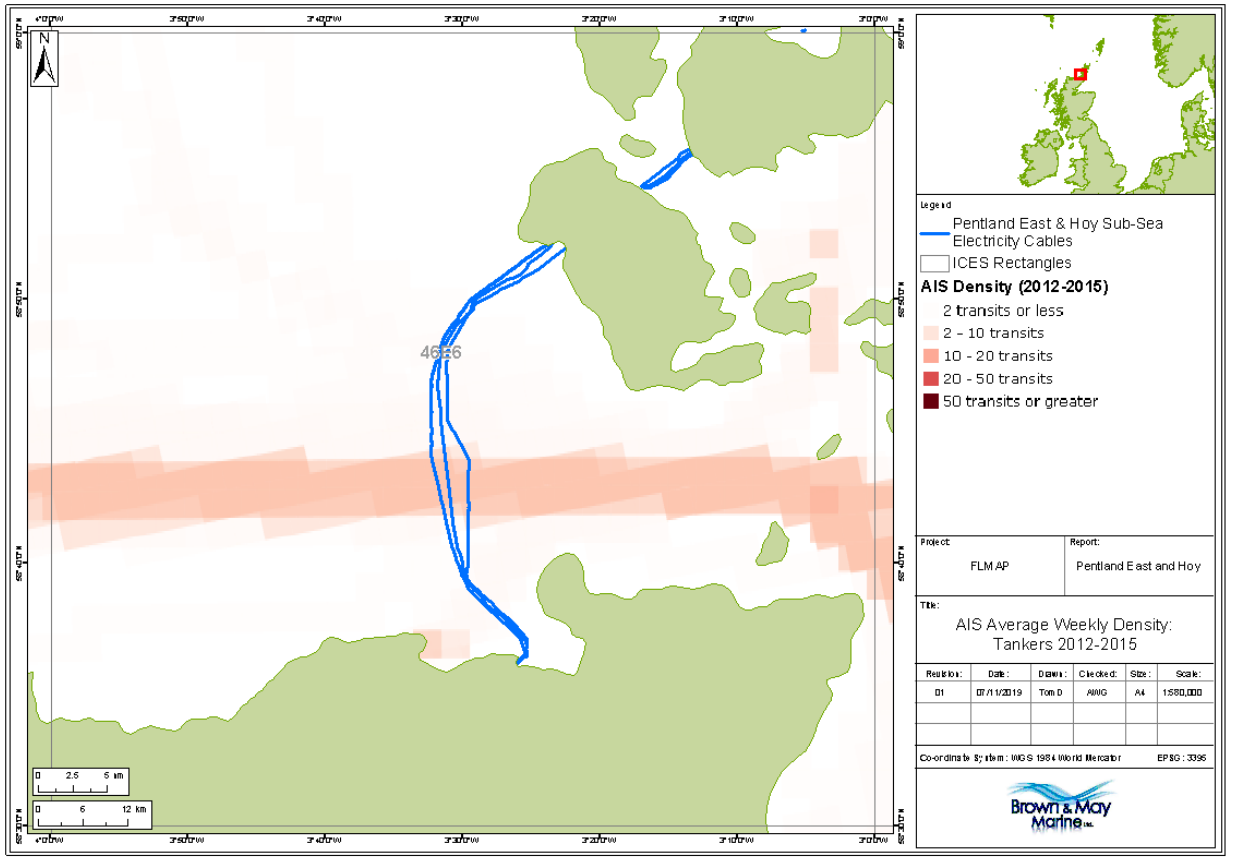

Figure 45 AIS tankers 2012-2015 (Marine Scotland 2017)

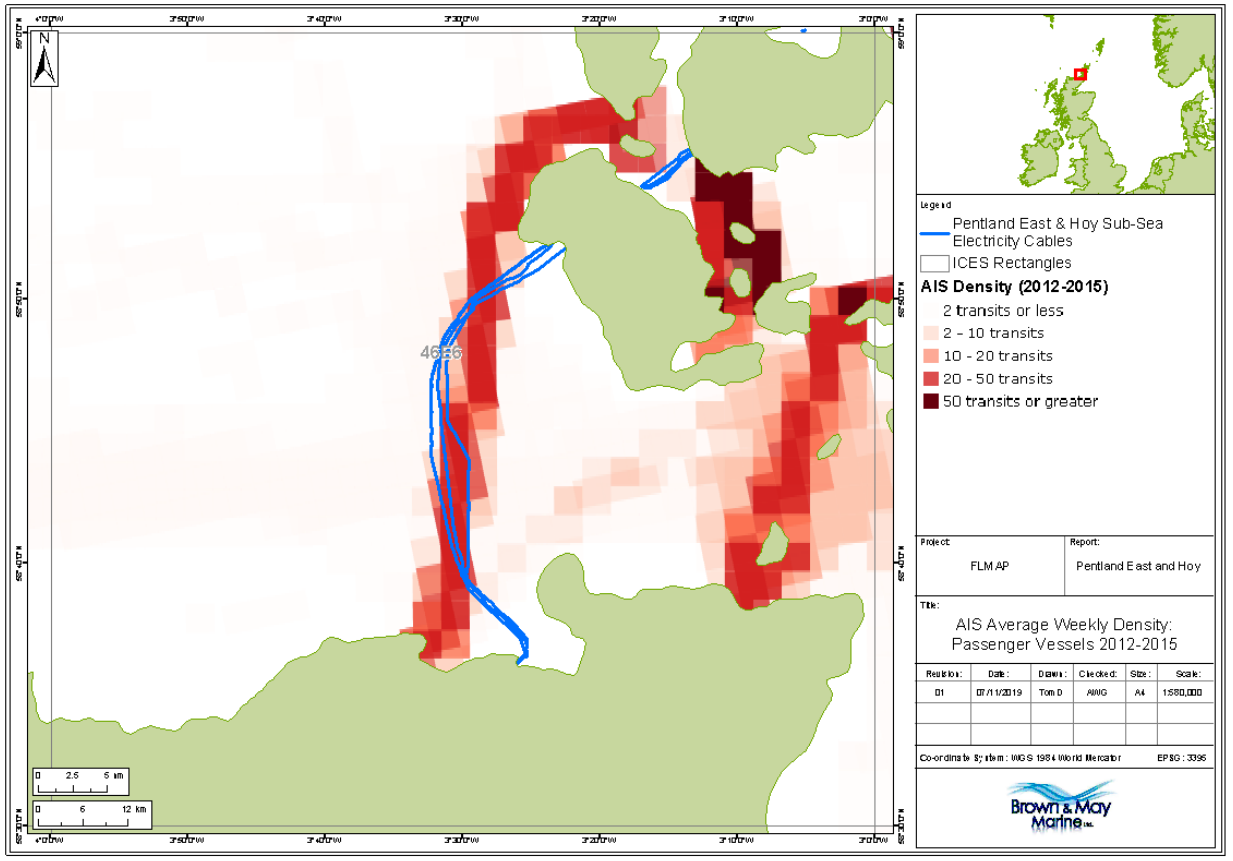

Figure 46 Passenger vessels – ferries (Marine Scotland 2017)

Appendix H Pentland East & Hoy FLMAP Delivery Programme

Scottish & Southern Electricity Networks

Specification

Submarine Electricity Cables

Fishing Liaison Mitigation Action Plan – Delivery Programme

Pentland East and Hoy Cable Works

1 Introduction

1.1 Scottish Hydro Electric Power Distribution plc (SHEPD) holds a licence under the Electricity Act 1989 for the distribution of electricity in the north of Scotland including the Islands. Fifty-nine Scottish Islands are currently connected to the electricity network that serves Great Britain by the Scottish Hydro Electric Power Distribution[25] network. They are connected by submarine electricity cables which supply electricity to homes and businesses on the islands.

1.2 SHEPD's overall objective is for works to progress with minimum disturbance to other legitimate sea users. The Company Fishing Liaison Officer (CFLO) and the Fishing Industry Representative (FIR) are to ensure that the flow of information and discussion between us and legitimate sea users is established and maintained throughout the project.

1.3 This delivery programme sets out how the CFLO and FIR will communicate during the project and how the deliverables, set out in the Fishing Liaison Mitigation Action Plan, will be measured and fulfilled. This document will also highlight any regional specific communication and consultation that is required, which may extend the notice period required to issue notice to mariners and communicate upcoming works. It will also highlight any ongoing issues which may arise throughout the cable inspection and construction works.

2 Project description

2.1 Two subsea cables in the Pentland Firth connect the Scottish Mainland to the Orkney Islands via the island of Hoy. Routine inspections have identified that the Pentland Firth East cable is coming to the end of its operational life and needs replacing. More recently, two faults have occurred on the cable requiring emergency repairs. These repairs were successful, and the cable was re-energised, but a long-term solution is needed to maintain a safe, secure and reliable power supply to homes and businesses on the islands.

2.2 A pre-installation survey was undertaken during August/September 2019 which included the following works:

- Offshore Geophysical Survey
- Offshore Geotechnical and Environmental Survey
- Nearshore Geophysical Survey
- Landfalll Geotechnical and Topographic Survey

2.3 The proposed cable route has been designed to be installed north to south. This is so that the initial shore end, which is usually a shorter operation, is at the more exposed Rackwick Landing Point (LP) on Hoy. By contrast, the more complex and time-consuming second end will be in the more sheltered Murkle Bay.

2.4 Reference should be made to the Project Description (Global Document Reference 2742-GO-S-SW-0001).

[25] Scottish Hydro Electric Power Distribution are the distribution licence holder under the Electricity Act 1989

2.5 Information regarding any cable works will be issued to all fishing and relevant legitimate sea user stakeholders to ensure effective co-existence.

2.6 To evidence the information and discussion which has taken place, a monthly summary report of the communications undertaken, including key meetings and agreed mitigation will be issued to SHEPD. This will form an audit trail documenting that communication and liaison with legitimate stakeholders has taken place.

3 Key project stakeholders

3.1 The key regional and project stakeholders have been listed in the *Fishing Liaison Mitigation Action Plan*. The communications which will be given to stakeholders are stated in **Table 31** and **Table 32**.

Table 31 Regional stakeholders and required notifications

Contact	Communication	Email
Kingfisher	NtM	kingfisher@seafish.co.uk
United Kingdom Hydrographic Office	NtM	sdr@ukho.gov.uk
UKHO Navigation Warnings	NtM	navwarnings@ukho.gov.uk
Northern Lighthouse Board	NtM	navigation@nlb.org.uk
Trinity House	NtM	navigation.directorate@thls.org
Marine Scotland	NtM	MS.MarineLicensing@gov.scot
Maritime and Coastguard Agency	NtM	navigationsafety@mcga.gov.uk
Maritime and Coastguard Agency	NtM	nmoccontroller@hmcg.gov.uk
The Crown Estate	NtM	Darren.Hirst@bidwells.co.uk
Scotland Natural Heritage	NtM	David.Law@snh.gov.uk
Scottish Environment Protection Agency (SEPA)	NtM	EPINorthernIsles@sepa.org.uk
Scottish Fishermen's Federation (SFF)	NtM	renewables@sff.co.uk
Regional Inshore Fisheries Group – Orkney Management Group	NtM	fiona@ofsorkney.co.uk
Orkney Harbour Master and Head of Marine Services	NtM	brian.archibald@orkney.gov.uk
Deputy Harbour Master Operations	NtM	harbours@orkney.gov.uk
Highland Council	NtM	service.point@highland.gov.uk
Ferry Services Manager	NtM	andrew.blake@orkney.gov.uk
Orkney Fisheries Association	NtM	orkneyfisheries@btconnect.com
Scottish Creel Fishermen's Federation	NtM	info@scottishcreelfishermensfederation.co.uk
RYA Scotland	NtM	admin@ryascotland.org.uk
Orkney Marinas	NtM	info@orkneymarinas.co.uk

Table 32 Cable specific stakeholders

Contact	Communication	Email
Orkney Rowing Club	NtM	info@orkneyrowingclub.com
Scapa Scuba	NtM	diving@scapascuba.co.uk
Orkney and Shetland Dive Charters – Lerwick	NtM	hazel@mv-valkyrie.co.uk
Cooke Aquaculture Scotland Ltd.	NtM	enquiries@cookeaqua.com
European Marine Energy Centre (EMEC)	NtM	info@emec.org.uk; andy.shanks@emec.org.uk
Scottish Sea Farms	NtM	lesley.dougall@scottishseafarms.com
Scrabster Harbour	NtM	harbour@scrabster.co.uk
Pentland Firth Yacht Club	NtM	pentlandfirthyc@gmail.com
Orkney Sea Kayaking Association	NtM	Sglittle123@gmail.com
Pentland Canoe Club	NtM	chairman@pentlandcanoeclub.org.uk; secretary@pentlandcanoeclub.org.uk
Orkney Sailing Club	NtM	orkneysc.commodore@gmail.com
Orkney Yole Association	NtM	lochaneilein@gmail.com
Holm Sailing Club	NtM	TBC- contact email address requested.
Caithness Diving Club	NtM	dunnetdad@gmail.com
Surfing – Scottish Surfing Federation	NtM	markboydsurf@hotmail.com
Orkney Sub Aqua	NtM	aimcrom@hotmail.com
Orkney Sea Kayaking Association	NtM	sglittle123@gmail.com
NAFC Marine Centre	NtM	nainfo@uhi.ac.uk
Stromness Sailing Club	NtM	mark.taylor1@mac.com
Orkney Islands Sea Angling Association	NtM	TBC- contact email address requested.

4 Programme of communication

4.1 SHEPD's priority is to identify and pro-actively engage with legitimate sea-users who could be potentially impacted by SHEPD's work.

4.2 A list of the anticipated communications by cable works activity is given in Table 33. This includes how the information is expected to be disseminated, along with any recommended timescales.

4.3 As part of the marine licencing process, SSEN undertake early engagement with the general public and any interested stakeholders and carry out Pre-Application Consultation (PAC) for any construction work required within the marine environment. We state within the PAC reports[26] how the views of our stakeholders have been considered and influenced our approach to cable design, installation and protection.

[26] The Pre-application Consultation Report is required by Marine (Scotland) Act 2010: Section 24

Table 33 Schedule for dissemination of information

Activity	Communication description	Communication type	Timescale
Cable inspections work programme	Notices and information distribution once available and following submission to Marine Scotland (MS).	Submarine electricity cable flyers	4 weeks if possible
	Regular liaison and updates by Fishing Industry Representative (FIR) with local fishermen of proposed timings with confirmations when operations programmes are finalised.	FIR communication	As required
	Regular liaison and updates by the Company Fishing Liaison Officer (CFLO) with other legitimate sea users of proposed timings with confirmations when operations programmes are finalised.	CFLO communication	As required
Cable works that have the potential to require gear relocation or have the potential to cause significant displacement to fishing activity	Regular liaison and updates by FIR with local fishermen, well in advance of disruption, defining who might be affected, where and when. Liaison to take into account weather, season, number of creels to be moved, etc.	FIR communication	As required
Specific cable works activities	Notice and information distribution not less than 20 days, if possible, for individual survey and construction vessels mobilisations.	Notice to Mariners	20 days, if possible
	Regular liaison and updates by FIR with local fishermen of proposed timings with confirmations when operations are finalised.	FIR communication	As required
	Regular liaison and updates by CFLO with other legitimate sea users of proposed timings with confirmations provided when planned works are finalised.	CFLO communication	As required
Meetings with fishery stakeholders	Meetings as required prior to and during the inspection surveys.	CFLO / FIR meeting	As required
Meetings with other legitimate sea users	Meetings as required prior to and during the inspection surveys.	CFLO / FIR meeting	As required
Ongoing Liaison	Additional unscheduled liaison and consultation will be undertaken by either the CFLO or the FIR as required to address issues or fishermen's concerns as they arise.	FIR / CFLO communication	As required

5 Register of commitments and mitigations

5.1 To evidence the information and discussion which has taken place, a monthly communications log of all communications undertaken, including calls, emails and meetings and agreed mitigation will be issued to SHEPD. This will form an audit trail documenting the communication and liaison with legitimate stakeholders which has taken place. In addition, the communications log will detail the commitments that have been agreed with stakeholders and planning authorities along with the proposed mitigation measures to be taken to address these commitments.

5.2 It is of note that the Orkney Fisheries Association (OFA) have requested compensation from SSEN Distribution for a member of their association relocating gear and their subsequent loss of earnings. The Orkney Fisheries Association will be included on the distribution list for all Orkney related NtMs.

5.3 A register of the commitments detailed within the *Fishing Liaison Mitigation Action Plan*, *Marine Mitigation and Co-existence Planning* and the *Standard Operating Procedures* documents are given in **Table 34**, with an example of the Communication Log and Commitments and Mitigation Log given in **Table 35** and **Table 36**.

Table 34 Register of commitments

Commitments	Time frame	Source
Submarine electricity cable flyers	4 weeks prior to commencement of works, if possible	*Fishing Liaison Mitigation Action Plan* *Marine Mitigation and Co-existence Planning*
Notices to Mariners (NtM)	20 days, if possible	*Fishing Liaison Mitigation Action Plan* *Marine Mitigation and Co-existence Planning*
Managing cable works to minimise any potential effects on the marine environment, habitats and static gear fishing by carrying out scouting surveys to identify potting areas and any other relevant static gear areas	Immediately prior to works by survey vessels	*Marine Mitigation and Co-existence Planning*
Identify and pro-actively engage with commercial fishing stakeholders as well as statutory and non-statutory organisations that have the potential to be affected by our activities		*Fishing Liaison Mitigation Action Plan* *Standard Operating Procedures*
Formulate, agree and implement efficient communication channels for distributing project related information to stakeholders		*Fishing Liaison Mitigation Action Plan* *Standard Operating Procedures*
Continue to obtain and address the concerns of commercial fishing stakeholders to be used in the formulation of mitigation strategies		*Fishing Liaison Mitigation Action Plan* *Standard Operating Procedures*
Promote productive co-existence through consultation with fishing stakeholders		*Fishing Liaison Mitigation Action Plan* *Standard Operating Procedures*

Table 35 Communication log template

Date	FLMAP	Cable	Cable works	Stakeholder name	Stakeholder company / association / vessel	Communication method (e.g. harbour visit, phone call)	Notes of communication

Table 36 Commitments and mitigation template

Date	FLMAP	Cable	Cable works	Stakeholder	Commitments agreed	Proposed mitigation

6 Procedures for changes to programme

6.1 During the submarine electricity cables inspection surveys, the CFLO will ensure the timely provision of information regarding programmed vessel movements or delays. In addition, this communication channel also facilitates dissemination of information, for example urgent bulletins in the event of any marine hazards (e.g. loss of plant onto the seabed). The CFLO will provide a manned 24-hour contact number.

6.2 Any changes in the work programme that are communicated to the CFLO will be disseminated to the relevant stakeholders through NTM updates and emails and calls from the FIR and CFLO, with face to face communications from the FIR if required. This will be assessed on a case by case basis in agreement with SHEPD. All communications will be recorded in the communications log.