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Marine Scotland - Licensing Operations Team Opinion on voluntary Scoping Report as part of the Havfrue subsea cable marine licence application

Havfrue (per ERM Consultancy)
Havfrue Subsea Telecommunications Cable
Norway to US via Scottish Waters

OPINION FOR THE PROPOSED MARINE LICENCE APPLICATION

Contents

1. Executive Summary

This is the opinion adopted by the Scottish Ministers, as to the scope and level of detail of information to be provided in the Environmental Appraisal ("EA") report, for the proposed Havfrue Telecommunications submarine cable between Norway and the United States via Scottish inshore and offshore waters. This opinion has been requested by ERM Consulting on behalf of the applicant TE Connectivity ("the applicant").

Whilst standalone submarine cable projects are not listed as Environmental Impact Assessment ("EIA") projects under Schedule 1 or 2 of The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (as amended) ("the 2017 MW Regulations"), the Scottish Ministers require an application for a marine licence to be accompanied by an assessment of the environmental effects detailing the assessments carried out, in this case termed an 'Environmental Appraisal' (EA). The Scottish Ministers offer to 'scope' such an assessment in a similar manner to EIA projects to ensure the required information is considered during the pre-application process.

This opinion is based on the information provided by the applicant, dated 14 May 2018, for the Scottish Ministers to review the document and adopt an opinion. The request included the submission of a voluntary Scoping Report as part of the Havfrue subsea cable marine licence application ("the report"). The Scottish Ministers have consulted on the scoping report and the responses received have been taken into account in adopting this opinion. The matters addressed by the applicant in the report have been carefully considered.

The main potential issues identified are:

- rock protection has not been scoped in and therefore does not provide a worst case scenario on impacts; and
- impacts to the fishing industry, benthic ecology and fish ecology.

Detailed information is provided in the specialist topic sections. Matters are not scoped out unless specifically addressed and justified by the applicant and confirmed as being scoped out by the Scottish Ministers. Table 1 summarises the Scottish Minister's advice on whether topics are to be scoped in or out.

Table 1: Scottish Minister's opinion as to whether topics are to be scoped in or out.

Topic	Reason for scoping in / out
Metocean Conditions	Scoped OUT. Insufficient concerns regarding this receptor to warrant further assessment.
Geology, Geomorphology and Sedimentary Processes	Scoped OUT. Insufficient concerns regarding this receptor to warrant further assessment.
Water Quality	Scoped OUT. Insufficient concerns regarding this receptor to warrant further assessment.
Noise	Scoped OUT. Insufficient concerns regarding this receptor to warrant further assessment.
Benthic Ecology	Scoped IN. A full cable burial risk assessment should inform potential impacts.
Fish and Shellfish Ecology	Scoped IN. A full cable burial risk assessment should inform potential impacts.
Marine Mammals	Scoped OUT. Should noise emitting equipment be used, the requirements for an Marine Mammal Protection Plan ("MMPP") can be considered through the marine licensing process.
Seabirds	Scoped OUT. Lack of sensitive features and negligible magnitude of effect. Consultees agree no likely significant impacts.
Designated Sites	Scoped IN. Based on the sensitivity of receptors and potential magnitude of effect, consultees agree potential likely significant impacts.
Commercial Fisheries	Scoped IN. Based on the sensitivity of receptors and potential magnitude of effect, consultees agree potential likely significant impacts.
Shipping and Navigation	Scoped IN. Based on the sensitivity of receptors and potential magnitude of effect, consultees agree potential likely significant impacts.
Infrastructure and other users	Scoped OUT. Based on the sensitivity of receptors and potential magnitude of effect, consultees agree potential likely significant impacts.
Marine Archaeology and Cultural Heritage	Scoped OUT. Lack of sensitive features and negligible magnitude of effect. Consultees agree no likely significant impacts.

For the avoidance of doubt, the adoption of this scoping opinion by the Scottish Ministers does not preclude the Scottish Ministers from requiring the applicant to submit additional information in connection with any EA report submitted with their application for a marine licence relative to the proposed works.

In the event that an application is not submitted by the applicant for the proposed works within 12 months of the date of this scoping opinion, the Scottish Ministers recommend that the applicant seeks further advice from them regarding the potential to update the scoping opinion.

2. Introduction

2.1 Background to scoping opinion

2.1.1 We refer to your email of 14 May 2018 requesting a scoping opinion from the Scottish Ministers. Your request included a scoping report which contained a description of the location of the works, including a plan sufficient to identify the area in which the works are proposed to be sited, and a description of the nature and purpose of the proposed works and their likely impact on the environment. Although the proposed licence application relates to work occurring within Scottish Territorial Seas (12nm), the Scottish Ministers note the operation as a whole occurs in both inshore and offshore waters and the report did not include impacts outwith 12 NM. According to the report, no use of mattressing or rock placement was planned at the time of writing.

2.2 The requirement for an Environmental Appraisal

2.2.1 Due to the nature of the works, the environmental impacts do not have to be assessed under the 2017 MW Regulations, and therefore an EIA report is not required. However this opinion details what environmental impacts should be considered in more detail and these should be taken forward and contained within the EA to support the marine licence application.

2.3 The content of this opinion

2.3.1 In regards to your request for an opinion on the proposed content of the required EA, the Scottish Ministers have considered the documentation provided to date and consulted with the appropriate consultation bodies (see Appendix I).

2.3.2 The pre-application process is vital in generating an understanding of the biological, chemical and physical processes operating in and around the proposed works site and those that may be impacted by the proposed works. We would however state that references made within this opinion with regard to the significance of impacts should not prejudice the outcome of the pre-application process. It is therefore expected that these processes will be fully assessed in the EA unless scoped out.

3. Description of works

3.1 Background to the works

3.1.1 The applicant has proposed the installation of the Havfrue subsea fibre-optic telecommunications cable between Europe and the USA. This cable will link under the North Sea and Atlantic, from the Republic of Ireland, west of Scotland and then east between Orkney and the Shetland Islands. Approximately 38km of the cable will be located within 12nm of the Scottish coast and a further 925km located beyond 12nm to the limit of the UK Exclusive Economic Zone ("EEZ"). The proposed subsea cable comprises the following construction activities:

- Installation by a cable ship, buried to a target depth of 2m below the seabed, as seabed conditions allow out to 1,500m water depth, including the full length of the cable within 12nm.
- Clearance on out of service cables.
- Where burial is not possible, the cable will be surface-laid across hard bottom areas and beyond 1,500m water depth.
- The life expectancy of the cable is approximately 25 years.

4. Aim of this Scoping Opinion

4.1 The scoping process

4.1.1 Scoping provides the first identification, and likely significance, of the environmental impacts of the proposal and the information needed to enable their assessment. The scoping process is designed to identify which impacts will or will not need to be addressed in the EA report. This includes the scope of impacts to be addressed and the method of assessment to be used. The scoping process also allows consultees to have early input into the EA process, to specify their concerns and to supply information that could be pertinent to the EA process. In association with any comments herein, full regard has been given to the information contained within the documentation submitted with the scoping opinion request.

4.1.2 The Scottish Ministers have also used this opportunity to provide advice in relation to the licensing requirements (see Appendix II) and specific cable application requirements (Appendix III).

5. Consultation

5.1.1 On receipt of the scoping opinion request documentation, the Scottish Ministers, in accordance with the 2017 MW Regulations, initiated a 30 day consultation process, which commenced on 02 May 2018. The following bodies were consulted, those marked in bold provided a response, those marked in *italics* sent a response stating they had no comments:

- Association of Salmon Fishery Boards
- British Shipping
- Caledonian Maritime Assets Limited
- *Crown Estate Scotland*
- **Defence Infrastructure Organisation ("DIO")**
- **Historic Environment Scotland ("HES")**
- **Joint Nature Conservation Committee ("JNCC")**
- Marine Scotland Planning and Policy
- **Maritime Coastguard Agency ("MCA")**
- Marine Safety Forum
- Marine Scotland Fishery Office - Lerwick
- Marine Scotland Fishery Office - Kirkwall
- Marine Scotland Science
- Nairn River Community Council
- **The Northern Lighthouse Board ("NLB")**
- **Orkney Fisheries ("OF")**
- Orkney Islands Council
- Royal Society for the Protection of Birds
- **The Royal Yachting Association ("RYA")**
- **Scottish Environment Protection Agency ("SEPA")**
- **Scottish Fishermen's Federation ("SFF")**
- **Scottish Natural Heritage ("SNH")**
- Scottish Salmon Producers Association
- Scottish Wildlife Trust
- Shetland Fishermen's Federation
- Shetland Islands Council
- Shetland Marine Planning Partnership
- Shetland Shellfish Management Organisation
- Transport Scotland
- UK Chamber of Shipping
- Whale and Dolphin Conservation

5.1.2 From the list above, a total of 10 responses were received. The purpose of the consultation was to obtain advice and guidance from each consultee or advisor

as to which potential effects should be scoped in or out of the EA.

5.1.3 The sections below highlight issues which are of particular importance with regards to the EA report and any marine licence application(s). Full consultation responses are attached in Appendix I and each should be read in full for detailed requirements from individual consultees. The Scottish Ministers expect all consultee concerns to be addressed in the EA report unless otherwise stated.

6. Contents of the EA

6.1.1 The EA must be based on this scoping opinion and include the information that may be reasonably required for reaching a reasoned conclusion, which is up to date, on the significant effects of the works on the environment, taking into account current knowledge and methods of assessment.

6.1.2 A gap analysis template is attached at Appendix IV to record the environmental concerns identified during the scoping process. This template should be completed and used to inform the preparation of the EA report. In assessing the quality and suitability of applications, the Scottish Ministers will use the gap analysis template and this scoping opinion in assessment of the submitted application.

6.2 Mitigation

Within the EA report it is important that all mitigating measures are:

- clearly stated;
- accurate;
- assessed for their environmental effects;
- assessed for their effectiveness;
- fully described with regards to their implementation and monitoring, and;
- described in relation to any consents or conditions

The EA report should contain a mitigation table providing details of all proposed mitigation discussed in the various chapters. Refer to Appendix I for consultee comments on specific baseline assessment and mitigation.

Where potential environmental impacts have been fully investigated but found to be of little or no significance, it is sufficient to validate that part of the assessment by detailing in the EA report:

- the work has been undertaken;
- what this has shown i.e. what impact if any has been identified; and
- why it is not significant.

6.3 Design Envelope

6.3.1 The exact nature of the work that is needed to inform the EA may vary depending on the design choices. Where flexibility in the design envelope is required, this must be defined within the EA report and the reasons for requiring such flexibility clearly stated. To address any uncertainty the EA report must consider the potential impacts associated with each of the different scenarios. The criteria for

selecting the worst case, and the most likely scenario, along with the potential impacts arising from these must also be described. The Scottish Ministers will determine the application based on the worst case scenario. The EA will reduce the degree of design flexibility required and that the detail will be further refined in a Construction Method Statement ("CMS") to be submitted to the Scottish Ministers, for their approval, before works commence. The CMS will freeze the design of the project and will be reviewed by the Scottish Ministers to ensure that the worst case scenario described in the EA report is not exceeded.

7. Interests to be considered within the EA report

7.1 Introduction

7.1.1 The scoping report considered the likely impacts of the works on the environment under the headings and topics addressed below. This section also contains a summary of the main points raised by consultees and the Scottish Ministers' opinion on whether EA topics should be scoped in or out. The consultation responses are contained in Appendix I and the applicant is advised to carefully consider these responses and use the advice and guidance contained within them to inform the EA report.

7.2 Metocean Conditions

7.2.1 The applicant acknowledged that alteration of the bathymetry through cable burial or placement of the cable on the seabed would be very localised in nature, and therefore proposed scoping out impacts to hydrography.

7.2.2 The applicant considered that construction vessels will emit pollutants from the engines and auxiliary power generation and proposed scoping this topic out.

7.2.3 Given the very localised scale of impact to hydrography and the negligible impact from emissions, the Scottish Ministers advise that:

- impacts to bathymetry can be scoped out; and
- emissions can be scoped out.

7.3 Geology, Geomorphology and Sedimentary Processes

7.3.1 The applicant characterised the sediments of the project area, and considered that where the cable cannot be buried, such as over hard substrate, the cable will be laid across the surface, leaving the feature in place. As such, the applicant concluded that potential for effects on geological features of interest or sedimentary processes along the cable route would be minimal.

7.3.2 The Scottish Ministers agree with the applicant that potential effects on geology, geomorphology and sedimentary processes are not considered to be significant due the small magnitude of effect and the low sensitivity of the area. The Scottish Ministers therefore conclude that:

- geology, geomorphology and sedimentary processes can be scoped out of the EA.

7.4 Water Quality

7.4.1 The vessels will release routine discharges such as black and grey water, galley water, bilge and ballast water in line with national and international requirements, such as MARPOL. As such no significant effects on water quality are expected from routine discharges and the applicant proposed to scope these out of the EA.

7.4.2 Impacts from sedimentation on water quality during installation were considered to be negligible and the applicant proposed to scope these out of the EA.

7.4.3 The applicant considered that unplanned fuel spills from events such as collisions or releases from equipment on deck could affect water quality, including within protected areas. The applicant proposed to consider this topic in further detail in the EA.

7.4.4 The Scottish Ministers consider that impacts from routine discharges, increased sedimentation effects, and the risk of accidental fuel spills on water quality is negligible and therefore conclude that:

- water quality can be scoped out of the EA.

7.5 Noise

7.5.1 The applicant considered that noise generated from the project will include vessels and the cable laying activities which will be similar to normal vessel movements and fishing trawlers operating in the area. As such, the applicant suggested no significant effects from noise are expected and proposed scoping this topic out of the assessment.

7.5.2 The applicant should note that the use of Ultra Short Baseline (“USBL”) positioning systems, which are commonly used when laying cables, can cause disturbance to cetaceans and seals. In such cases where this equipment would be used, then an European Protected Species (“EPS”) licence may be required from Scottish Ministers. Guidance on EPS licensing is provided in Appendix II.

7.5.3 In their consultation response, SNH considered that providing no sonar equipment would be used, they were content with the proposed scope of the EA.

7.5.4 The Scottish Ministers conclude that:

- noise can be scoped out, but should there be any potential for the use of noise emitting equipment, works must be carried on in accordance with an EPS licence and potential impacts mitigated through the marine licensing process.

7.6 Benthic Ecology

7.6.1 The applicant conducted a desk-based study and noted predominant habitat types, but noted further data sources will be used for the EA. The applicant noted direct seabed disturbance will occur along the length of the cable route to an approximate width of 0.75 m, with potentially significant effects on benthic ecology from cable installation including:

- direct seabed disturbance from ploughing/cable burial activities; and
- increase in suspended sediment concentrations in the water column and subsequent settlement of sediments on the surrounding seabed from ploughing/cable burial activities.

7.6.2 The applicant did not consider the impacts to benthic ecology of de-burial activities with out-of-service cables. Prior to taking cables out-of-service, the applicant should obtain agreement from the Scottish Ministers on the proposed methods and mitigations of impacts to de-burial.

7.6.3 In their consultation response, JNCC considers it best practice to consider the full width of the plough (~10m) as it travels over the seabed rather than only the width of the blade. JNCC further note the seabed disturbance estimation does not consider the disturbance width of any grapnel operations or post lay burial being carried out, and whether just one grapnel would be utilised or a grapnel array.

7.6.4 JNCC further expressed concern that the worst-case scenario had not been considered regarding rock protection material to be introduced which could have potential effects on sandy and muddy sea beds.

7.6.5 The Scottish Ministers agree with JNCC in their concerns around the lack of rock protection scoped in. Despite the presence of cable crossings and uncertainties of ground condition, no rock protection was proposed or discussed within the Scoping Report. The Scottish Ministers advise a full cable burial risk assessment is required to inform potential impacts to benthic ecology, including detail where the use of rock has been minimised. The Scottish Ministers conclude that:

- benthic ecology should be scoped into the EA and should consider any impacts from potential rock protection and any de-burial activities.

7.7 Fish and Shellfish Ecology

7.7.1 The applicant proposed scoping out fish and shellfish ecology on the basis that they would achieve burial throughout the route of the cable. Based on JNCC's response regarding concerns around the lack of rock protection proposed

7.7.2 The Scottish Ministers conclude that:

- fish and shellfish ecology should be scoped into the EA and should consider any impacts from potential rock protection.

7.8 Marine Mammals

7.8.1 The applicant considered that the likelihood of impacts to marine mammals through collision or entanglement were low given the short term and transient nature of installation.

7.8.2 As advised in section 7.5.4, marine mammals should be scoped in should there be any potential for the use of noise emitting equipment. The potential works must be carried on in accordance with an EPS licence and potential impacts considered within the marine mammals section. Should the use of noise emitting equipment be used, the Scottish Ministers advise a Marine Mammal Protection Plan ("MMPP") be produced as a separate document to support the marine licence application to consider impacts to cetaceans and seals that occur regularly in the Fair Isle Channel. This should include details of mitigation and the use of Marine Mammal Observers ("MMO") and Passive Acoustic Monitoring ("PAM"). Should the impact on EPS be envisaged, an EPS licence will be required. Should the impact on seals be envisaged, mitigations may be required in accordance with the marine licence.

7.8.3 Given the temporary and transient nature of the cable laying activities, the likelihood of disturbance or collision effects are negligible and Scottish Ministers conclude that:

- marine mammals can be scoped out; and
- should there be any potential for the use of noise emitting equipment, works must be carried on in accordance with an EPS licence and potential impacts mitigated through the marine licensing process.

7.9 Seabirds

7.9.1 The applicant considered that potential effects on seabirds were limited given the short term nature of the proposed activities.

7.9.2 No consultees had concerns over impacts to seabirds.

7.9.3 The Scottish Ministers conclude that due to the lack of sensitive features and negligible magnitude of effect:

- impacts to seabirds can be scoped out of the EA.

7.10 Designated Sites

7.10.1 The scoping report identified no designated sites crossed by the cable

within 12nm of the Scottish coast. Appendix A of the scoping report described the portions of the route in the UK EEZ that pass through designated areas.

7.10.2 In their consultation response, JNCC noted that the proposed operations occur within the West Shetland Shelf Nature Conservation Marine Protected Area (NCMPA) designated for offshore subtidal sands and gravels; and North-West Orkney NCMPA designated for sandeels and geomorphological features, including sand banks, sand wave fields and sediment wave fields representative of the Fair Isle Strait Marine Process Bedforms Key Geodiversity Area. JNCC calculated that the proposed operations are likely to impact upon 0.000725% of the West of Shetland NCMPA and 0.000787% of North West Orkney NCMPA respectively.

7.10.3 JNCC expressed concern that there may be other habitats of nature conservation interest affected by the proposed operations, but could not provide further comment on interaction of the site features and proposed operations due to the low resolution map used.

7.10.4 The Scottish Ministers agree with the applicant that benthic ecology should be scoped in, and conclude that further consideration should be given to:

- the presence of Annex 1 habitats when better seabed data is available to the applicant; and
- the results of the cable burial risk assessment and how this impacts designated sites.

7.11 Commercial Fisheries

7.11.1 The applicant proposed scoping out commercial fisheries on the basis that they would achieve burial throughout the route of the cable. Despite the presence of cable crossings and uncertainties of ground condition, no rock protection was proposed.

7.11.2 In their response, SFF expressed concern that the worst-case scenario had not been considered regarding rock protection material to be used and its effects on fisheries. Orkney Fisheries (OF) provided a response that noted the cable is likely to cross trawl and static gear fishing grounds. In this respect, the Scottish Ministers advise the applicant to consult with the OF at all stages to keep local fishermen well informed of potential impacts. A Fisheries Liaison Mitigation Action Plan (FLMAP) and Communication Plan (as detailed in Appendix III) should mitigate any potential for disturbance to other sea users during installation.

7.11.3 The Scottish Ministers conclude that given the potential for rock protection to impact fishing grounds:

- commercial fishing should be scoped in; and
- a full cable burial risk assessment should be included with the marine licence application, including detail where the use of rock has been minimised taking into account fishing interests.

7.12 Shipping and Navigation

7.12.1 The applicant considered that the risk to navigation could be mitigated by a Notice to Mariners.

7.12.2 In their consultation response, the MCA have proposed that a desk based Navigational Risk Assessment (NRA) is undertaken. The MCA further noted that there was no mention of possible contact with Unexploded Ordnance (UXO), which may be expected in this area and should be considered by the route survey and operator methodology.

7.12.3 In addition, MCA have advised that Scottish Ministers see evidence and consideration of engagement with local marine user groups, including commercial fisheries, ferry operators and merchant shipping. RYA noted that whilst there is significant recreational traffic across this route by UK and continental boats, recreational craft could be scoped out.

7.12.4 Given the importance of the Fair Isle Channel as a major shipping route, the Scottish Ministers therefore conclude that:

- shipping and navigation should be scoped into the EA, demonstrating appropriate evidence of early engagement with local marine user groups; and
- the applicant should address all issues of concern by referring to the full list of MCA's requirements (as provided in their consultation response in Appendix I).

7.13 Infrastructure and other users

7.13.1 In their consultation response, the DIO expressed their concerns that the planned route falls within a MOD Danger Area. This Danger Area supports live firing activities which would not be able to cease operation in order for the proposed cable works to be implemented. Furthermore, the cables would be a risk of damage due to firing activities or be affected by unexploded ordnance that may be present.

7.13.2 The Scottish Ministers agree with the DIO and advise that the applicant relocates the proposed cable route to avoid the MOD Danger Area. The Scottish

Ministers further advise the applicant to liaise with the DIO on any subsequent route change should there be potential for impacts.

7.13.3 The Scottish Ministers conclude:

- infrastructure and other users can be scoped out of the EA.

7.14 Marine Archaeology and Cultural Heritage

7.14.1 The applicant did not report any known marine features of archaeological importance within the proposed route, and therefore suggested to scope out marine archaeology and cultural heritage from the EA.

7.14.2 HES confirmed in their consultation response that they were satisfied that marine archaeology and cultural heritage could be scoped out of the EA.

7.14.3 The Scottish Ministers conclude that given the lack of sensitive features and no concerns expressed by consultees:

- marine archaeology and cultural heritage can be scoped out of the EA.

8. Marine Planning

8.1 Background

8.1.1 The development of cable projects should be in accordance with the UK Marine Policy Statement and the National Marine Plan ("NMP").

8.2 The UK Marine Policy Statement 2011

8.2.1 The UK Administrations share a common vision of having clean, healthy, safe, productive and biologically diverse oceans and seas. Joint adoption of a UK-wide Marine Policy Statement provides a consistent high-level policy context for the development of marine plans across the UK to achieve this vision. It also sets out the interrelationship between marine and terrestrial planning regimes. It requires that when the Scottish Ministers make decisions that affect, or might affect, the marine area they must do so in accordance with the Statement.

8.3 Scotland's National Marine Plan ("NMP")2015

8.3.1 Developed in accordance with the Marine (Scotland) Act 2010 and the Marine and Coastal Access Act 2009 (as amended), the NMP provides a comprehensive statutory planning framework for all activities out to 200 nautical miles. This includes policies for the sustainable management of a wide range of marine industries, including policies for cables. The Scottish Ministers must make authorisation and enforcement decisions, or any other decision that affects the marine environment, in accordance with the NMP. The NMP sets out a presumption in favour of sustainable works and use of the marine environment when consistent with the cables policies and objectives of the Plan.

8.4 Application and EA Report

8.4.1 It should be noted that any changes produced after the EA report is submitted may require further environmental assessment and public consultation.

9. Judicial review

All decisions may be subject to judicial review. A judicial review statement should be made available to the public.

10. Gaelic Language

If the proposed works are located in an area where Gaelic is spoken, the applicant is encouraged to adopt best practice by publicising details of the proposed works in both English and Gaelic.

Signed

[Redacted]
27 August 2018
Authorised by the Scottish Ministers to sign in that behalf.

Appendix I: Consultee Responses

Defence Infrastructure Organisation

From: DIO-Safeguarding-Offshore (MULTIUSER) <DIO-Safeguarding-Offshore@mod.gov.uk> Sent: Fri 27/07/2018 11:11
To: [Redacted]
Cc:
Subject: 20180727-TE SubCom / ERM – Havfrue Cable System – Norway to US via Fair Isle Channel (within and outwith 12 NM)-DIO 10043435-O

[Redacted]

Thank you for consulting DIO Safeguarding in regards to the proposed scoping application for the Havfrue Cable System on the 4th June 2018.

The cable route is a planned subsea cable system in the Atlantic and North Sea that will link the United States, Denmark, Ireland and Norway. The proposed route extends from the Republic of Ireland, west of Scotland and then east between Orkney and the Shetland Islands.

On reviewing the scoping documents and the proposed route the MOD has concerns. The planned cable route falls within the MOD Danger Area D701 as depicted on the Admiralty Practice and Exercise Areas (PEXA) Chart Q.6403.

This Danger Area currently supports live firing activities occur along with international weapons exercises. Whilst firing activities are conducted marine traffic and personnel are not permitted within the Danger Area as it provides a zone into which any shell fragments and ricochets are confined. The proposed location falls within the safety template for firing activities. The range is regularly used to carry out military practice and would not be able to cease operation in order for the proposed cable works to be implemented. The cables would also be at risk of damage due to firing activities or be affected by unexploded ordnance that may be present in the Danger Area as a result of the utilisation of this area for military training.

The scheme will not affect the MOD surface and submarine navigational interests.

In summary the proposed consultation is a concern due to being located within a Military Danger Area, in order to remove the MODs concerns the agent will need to relocate his cable outside of our parameters.

I trust the above is clear, if you require any further information please do not hesitate to contact me.

Kind Regards
[Redacted]

Safeguarding Officer
Estates – Safeguarding

Defence
Infrastructure
Organisation

Historic Environment Scotland

HISTORIC ENVIRONMENT SCOTLAND | ÀRAINNEACHD EACHDRAIDHEIL ALBA

By email to: MS.majorprojects@gov.scot

Marine Scotland (Aberdeen Office)
Marine Laboratory
375 Victoria Road
Aberdeen
AB11 9DB

Longmore House
Salisbury Place
Edinburgh
EH9 1SH

Enquiry Line: 0131-668-8716
HMConsultations@hes.scot

Our ref: AMN/16/Z
Our case ID: 300028925

25 June 2018

Dear [Redacted]

Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017
Fair Isle Channel, Shetland - Havfrue Cable System
Scoping Report

Thank you for your consultation which we received on 04 June 2018 about the above scoping report. We have reviewed the details in terms of our historic environment interests. This covers world heritage sites, scheduled monuments and their settings, category A-listed buildings and their settings, inventory gardens and designed landscapes, inventory battlefields and historic marine protected areas (HMPAs).

The relevant local authority archaeological and cultural heritage advisors will also be able to offer advice on the scope of the cultural heritage assessment. This may include heritage assets not covered by our interests, such as unscheduled archaeology, and category B- and C-listed buildings.

Proposed Development
I understand that the proposed Havrue Cable System comprises the subsea fibre-optic cable to be installed in the Atlantic and North Sea that will link the United States, Denmark, Ireland, and Norway. The subsea cable would be less than 4 centimetres in diameter and is to be installed across the seafloor. Where water depths are less than 1,500 metres the cable would be buried, where conditions allow, except where it crosses existing infrastructure. Approximately 38 kilometres of the cable route crosses Scottish Territorial Sea.

Scope of assessment
We have reviewed the information contained within the submitted Scoping Report. We note that Marine Archaeology and Heritage are to be scoped out of the EIA process. As the proposal is unlikely to have any significant adverse impacts on sites within our statutory remit listed above, we agree with this proposed course of action.

HISTORIC ENVIRONMENT SCOTLAND | ÀRAINNEACHD EACHDRAIDHEIL ALBA

Further information
Guidance about national policy can be found in our 'Managing Change in the Historic Environment' series available online at www.historicenvironment.scot/advice-and-support/planning-and-guidance/legislation-and-guidance/managing-change-in-the-historic-environment-guidance-notes. Technical advice is available on our Technical Conservation website at http://conservation.historic-scotland.gov.uk/.

We hope this is helpful. Please contact us if you have any questions about this response. The officer managing this case is [Redacted] and they can be contacted by phone on [Redacted] or by email on [Redacted]

Yours sincerely

Historic Environment Scotland

Joint Nature Conservancy Council

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[Redacted]

Marine Licensing Casework Manager
Marine Planning and Policy
Marine Scotland
Marine Laboratory
375 Victoria Road
Aberdeen
AB11 9DB

JNCC Reference: OIA 5443
Date: 4 July 2018

Dear [Redacted]

Europe to United States, TE SubCom, Havfrue Cable System Scoping Report

Thank you for consulting JNCC on the above scoping report by TE SubCom, which we received on 4 June 2018. Operations, which include the clearance of out of service cables, a prelay grapnel run and the installation of a subsea fibre-optic cable, are likely to take 7 days within Scottish Territorial Seas (<12nm) and are expected to occur from April 2019 to May 2019. Post lay inspection and burial may also be required, but is not currently planned.

The advice contained within this minute is provided by JNCC as part of our statutory advisory role to the UK Government and devolved administrations on issues relating to nature conservation in UK offshore waters (beyond 12 nautical miles). Although the licence application relates to work occurring within Scottish Territorial Seas, Marine Scotland has also consulted JNCC as the operation does also occur in waters >12nm.

This scoping report relates to operations that in the absence of specified activities (e.g. rock placement), no Marine Licence is required for installation of a marine cable outside of 12nm, including sections within Marine Protected Areas (MPAs), which are in the UK EEZ. No use of mattressing or rock placement is planned at this time. In the event that rock placement is required a separate Marine License would be required.

Although the licence application relates to operations within 12nm, Marine Scotland has consulted the JNCC as the operation as a whole occurs in both inshore and offshore waters. The proposed operations have not previously been assessed by JNCC.

Key nature conservation considerations

a) Nature conservation issues within the application

- Proposed operations occur within the West Shetland Shelf Nature Conservation Marine Protected Area (NCMPA) designated for offshore subtidal sands and gravels;

and North-West Orkney NCMPA designated for sandeels and geomorphological features, including sand banks, sand wave fields and sediment wave fields representative of the Fair Isle Strait Marine Process Bedforms Key Geodiversity Area.

- The evidence presented in the scoping report suggests that there are not any Annex I habitats affected by the proposed operations.
- The evidence presented in the application suggests that there may be other habitats of nature conservation interest affected by the proposed operations. The cable laying operation will occur within the North-West Orkney NCMPA, designated for geomorphological features, including sand banks, sand wave fields and sediment wave fields representative of the Fair Isle Strait Marine Process Bedforms Key Geodiversity Area. However, due to the low resolution of the map provided in the application, we cannot as yet provide further comment on interaction of the site features and proposed operations.
- There will not be any seismic or piling activities during the proposed operation.
- Approximately 38km of the cable will be located within 12nm of the Scottish coast, with an additional 925km of cable being located beyond 12nm to the limit of the UK EEZ.
- The total area of seabed, within Scottish territorial and offshore waters, expected to be impacted by the proposed operations are 0.028km^2 and 0.69375km^2 respectively.

Advice to Marine Scotland

The proposed operations are likely to impact upon 0.000725% of West of Shetland NCMPA and 0.000787% of North West Orkney NCMPA respectively.

JNCC currently considers that the proposed operations are unlikely to affect, other than insignificantly, the protected features of the West of Shetland NCMPA and North-West Orkney NCMPA.

Comments to Marine Scotland and the Operator concerning the application

JNCC would also like to bring the following to the attention of MS-LOT and the operator for consideration in future applications.

Worst case scenarios

JNCC considers it best practice to consider the full worst-case scenario to enable a meaningful assessment of the full environmental impacts of a project. We have uncertainties as to whether this has been done in this case in relation to this scoping report. On Page 17 Section 3.3.1 Potential Effects the scoping report assumes a direct seabed disturbance width of just 75cm. However, this is assumed to be the direct impact of only the plough blade itself rather than the full width of the plough (~10m) as it travels over the seabed. This seabed disturbance estimation also doesn't take into consideration the disturbance width of any grapnel operations or post lay burial being carried out, and whether just one grapnel would be utilised or a grapnel array.

Staged applications

Whilst JNCC appreciates that not all of the detailed project design is finalised, JNCC notes that best practice would not be to submit applications where stabilisation / protection material requirements are incrementally increased. The worst-case scenario should be assessed in the EA to enable a meaningful assessment of the whole environmental impact of the project to be undertaken.

It is understood that activities evolve over time, and that subsequent stages are often contingent on the outcome of the earlier activities. However, every effort should be made to predict the likely outcome and carry out an assessment on that basis so that all the elements have been assessed and presented in an EA.

Stabilisation material

The application involves the possible introduction of hard substrate into a mainly sedimentary environment. Although the changes are not necessarily considered as having a significant impact in this instance, we still encourage the operator to continue working to minimise the amount of hard substrate material used. We note that the long-term effect of the introduction of substratum into naturally sandy or muddy sea beds is not fully understood at present, and should be carefully considered by the regulators.

We welcome detailed commentary on any potential stabilisation operations to allow further understanding of their actual nature conservation impact. This would include:

- Location of dump sites
- Size / grade of rock to be used
- Tonnage / volume to be used
- Contingency tonnage / volume to be used
- Method of delivery to the seabed
- Footprint of rock
- Assessment of the impact
- Expected fate of deposit after end of production, i.e. will it be left in situ or recovered

Where stabilisation material cannot be avoided, we recommend using a more targeted placement method e.g. fallpipe vessel rather than using vessel-side discharge methods.

We would be pleased to continue to assist Marine Scotland in their determination of marine licence consent for this telecommunication cable.

Please contact me with any questions regarding the above comments.

Yours sincerely,

Maritime and Coastguard Agency

From: [redacted] Sent: Fri 03/08/2018 10:39
To:
Cc: navigation safety
Subject: RE: TE SubCom / ERM – Havfrue Cable System – Norway to US via Fair Isle Channel (within and outwith 12 NM)

Good Morning [Redacted]

With apologies for the delayed response, please see our comments below:

Thank you for the opportunity to comment on the Scoping Request for the proposed Norway to US Havfrue Cable System via the Fair Isle Channel.

Subsea cables raise particular concerns to the safety of navigation and a series of conditions will have to be complied with should the consultation progress to application. We note that the cable will be buried to avoid the potential for anchors to snag or any interaction with fishing/trawling, and that the works will take place within some high traffic areas. Key issues that will have to be addressed prior to consent:

A Navigation Risk Assessment should be undertaken to supply detail on the possible impact on navigational issues for commercial vessels, recreational craft and fishing vessels. The NRA should address issues such as:

- Collision Risk
- Navigational Safety
- Visual intrusion and noise
- Risk Management and Emergency response
- Marking and lighting of site and information to mariners
- Effect on small craft navigational and communication equipment

The developer must ensure that 'the works' do not encroach on any recognised anchorage, either charted or noted in nautical publications, within the proposed consent area.

The developer must provide information into the likely effects of electromagnetic deviation on ships' compasses. The MCA would be willing to accept a three degree deviation for 95% of the cable route. For the remaining 5% of the cable route no more than five degrees will be attained. The MCA would however expect a deviation survey post the cable being laid; this will confirm conformity with the consent condition. The developer should then provide this data to UKHO via a hydrographic note (H102), as they may want a precautionary notation on the appropriate Admiralty Charts.

Particular attention should be paid to cabling routes and burial depth for which a Burial Protection Index study should be completed and, subject to the traffic volumes, an anchor penetration study may be necessary. Any consented cable protection works must ensure existing and future safe navigation is not compromised, accepting a maximum of 5% reduction in surrounding depth referenced to Chart Datum.

We note that there is no mention of possible contact with Unexploded Ordnance (UXO), which may be expected in this area and should be considered by the route survey and operator methodology.

In addition, we would like to see evidence and consideration of engagement with local marine user groups, including commercial fisheries and merchant shipping. At the formal marine licencing stage, we are likely to advise appropriate conditions such as the issuance of Notices to Mariners and the UKHO Nav Warnings team, so that local traffic can be made aware of the works. In particular consideration will need to be made of any impact to ferry routes operating between Scotland, the Orkney Islands and the Shetland Islands. Appropriate evidence of early engagement would be welcome.

The vessel operator will need to fully comply with UK and international maritime safety legislation, including the International Regulations for the Prevention of Collisions at Sea 1972 (COLREGs).

A detailed review of any application will be undertaken before consent is granted.

Best Regards,

Northern Lighthouse Board

Northern Lighthouse Board

84 George Street
Edinburgh EH2 3DA
Switchboard: 0131 473 3100
Fax: 0131 220 2093
Website: www.nlb.org.uk
Email: enquiries@nlb.org.uk

Your Ref: 20180511
Our Ref: AL/OPS/ML/S8_01_231

[Redacted]

Marine Licensing Casework Manager
Marine Scotland – Marine Planning & Policy
Scottish Government
Marine Laboratory
375 Victoria Road
ABERDEEN
AB11 9DB

11/06/2018

Dear [Redacted]

MARINE (SCOTLAND) ACT 2010 – PART 4 MARINE LICENSING
TYCO SUBCOM / ERM – HAVFRUE CABLE SYSTEM – NORWAY TO US VIA FAIR ISLE CHANNEL

Thank you for your e-mail correspondence dated 04 June 2018 regarding the application submitted by **Tyco SubCom / ERM** regarding the installation of the Havfrue cable system, between Norway and the US, via the Fair Isle Channel, both within and outwith the UK 12 nautical mile boundary..

Northern Lighthouse Board has no objections to this deployment and recommends the following:

- **Tyco SubCom** should issue marine safety information clearly stating the nature and duration of the works.

On completion of works, copies of the 'as laid' plans should be submitted to the UK Hydrographic Office (sdr@ukho.gov.uk) in order that the associated Admiralty Charts can be revised as necessary.

Yours sincerely

Orkney Fisheries

From: [Redacted] Sent: Tue 03/07/2018 09:15
To:
Cc:
Subject: Re: TE SubCom / ERM – Havfrue Cable System – Norway to US via Fair Isle Channel (within and outwith 12 NM)

Dear [Redacted]

We would need to be assured that there was full consultation with ourselves on the routing and burial options for this cable as it is very likely to cross trawled fishing grounds and static gear fishing grounds.
In that respect OFA would wish to be kept well informed of all stages and design elements of the development.
Kind regards

Royal Yachting Association Scotland

From: [Redacted] Sent: Mon 18/06/2018 11:17
To:
Cc:
Subject: RE: TE SubCom / ERM – Havfrue Cable System – Norway to US via Fair Isle Channel (within and outwith 12 NM)

Dear [Redacted]

RYA Scotland recognises that while there is significant recreational traffic across this route by UK and continental boats, cable laying is covered by the International Regulations for the Prevention of Collisions at Sea and so recreational boating can be scoped out of the study.

Kind Regards

[Redacted]

Scottish Environment Protection Agency

SEPA
Scottish Environment Protection Agency
Buidheann Dion Àrainneachd na h-Alba

Our ref: PCS/159527
Your ref:

If telephoning ask for: [Redacted]

13 June 2018

[Redacted]
Marine Scotland
Marine Laboratory
375 Victoria Road
Aberdeen
AB11 9DB

By email only to: ms.majorprojects@gov.scot

Dear [Redacted]

Marine (Scotland) Act 2010
TE SubCom / ERM – Havfrue Cable System – Norway to US via Fair Isle Channel

Thank you for your consultation email, which SEPA received on the 4 June 2018, enclosing a scoping report for the above proposal.

We note the project will include a subsea fibre-optic cable to be installed in approximately 38km of Scottish territorial seas.

Our main concerns would relate to where the cable would make landfall and waste management as part of the construction and decommissioning. However, the Scoping Report details that the cable will "be installed across the seafloor and buried out to the 1,500 m depth contour off the coast, where conditions allow" and that "There is no landing site in the UK." The report also references a Decommissioning Plan.

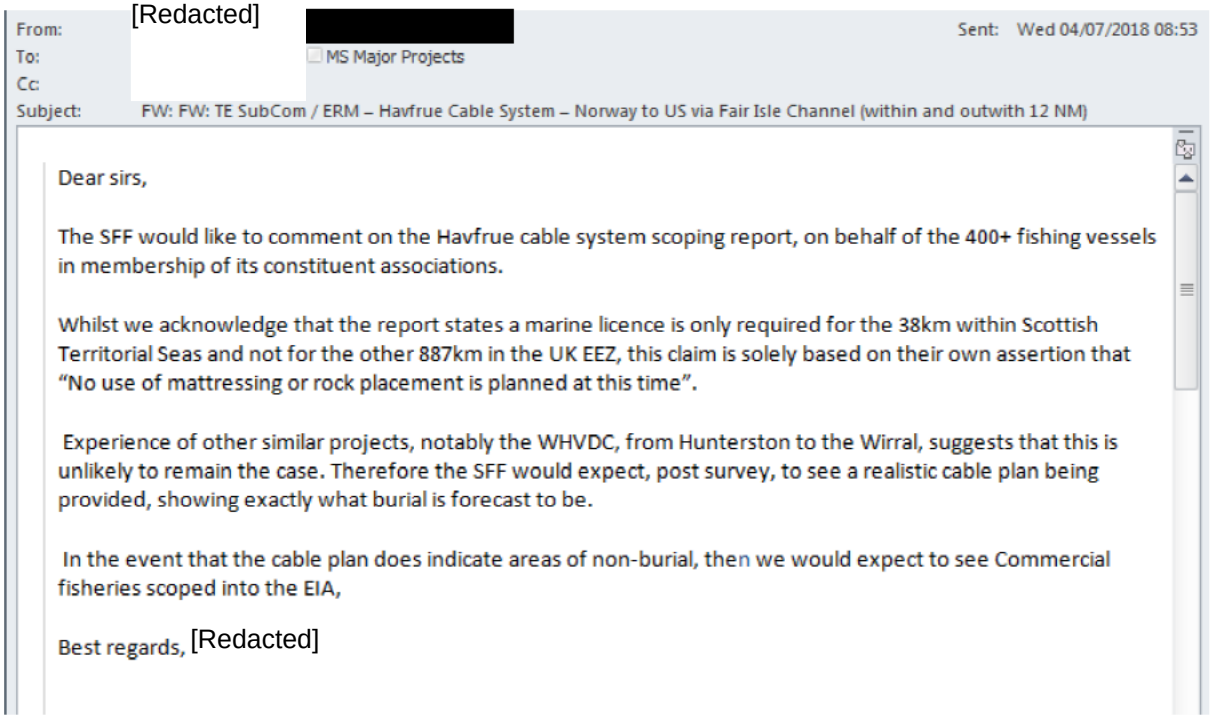
As such we have no specific advice or comments. Instead, please refer to our standing advice on marine consultations within guidance document SEPA standing advice for The Department of Energy and Climate Change and Marine Scotland on marine consultations. Specifically section 3 and example the decommissioning section of Table 1.

If, after consulting this guidance, you still require our comment on some site specific issue which is not adequately dealt with by the standing advice, then we would welcome the opportunity to be re-consulted. Please note that the site specific issue on which you are seeking our advice must be clearly indicated in the body of the consultation email or letter.

Further information on our consultation arrangements generally can be found in How and when to consult SEPA.

If you have any queries relating to this letter, please contact me by telephone on 01224 266656 or email at planning.aberdeen@sepa.org.uk.

Scottish Fishermen's Federation



From: [Redacted] Sent: Wed 04/07/2018 08:53
To: MS Major Projects
Cc:
Subject: FW: FW: TE SubCom / ERM – Havfrue Cable System – Norway to US via Fair Isle Channel (within and outwith 12 NM)

Dear sirs,

The SFF would like to comment on the Havfrue cable system scoping report, on behalf of the 400+ fishing vessels in membership of its constituent associations.

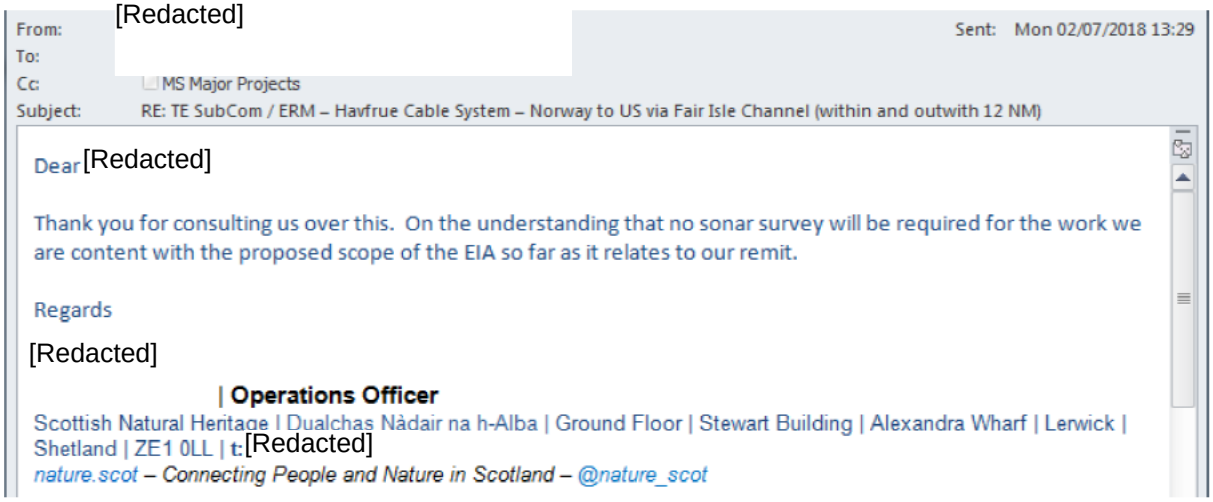
Whilst we acknowledge that the report states a marine licence is only required for the 38km within Scottish Territorial Seas and not for the other 887km in the UK EEZ, this claim is solely based on their own assertion that "No use of mattressing or rock placement is planned at this time".

Experience of other similar projects, notably the WHVDC, from Hunterston to the Wirral, suggests that this is unlikely to remain the case. Therefore the SFF would expect, post survey, to see a realistic cable plan being provided, showing exactly what burial is forecast to be.

In the event that the cable plan does indicate areas of non-burial, then we would expect to see Commercial fisheries scoped into the EIA,

Best regards, [Redacted]

Scottish Natural Heritage



From: [Redacted] Sent: Mon 02/07/2018 13:29
To:
Cc: MS Major Projects
Subject: RE: TE SubCom / ERM – Havfrue Cable System – Norway to US via Fair Isle Channel (within and outwith 12 NM)

Dear [Redacted]

Thank you for consulting us over this. On the understanding that no sonar survey will be required for the work we are content with the proposed scope of the EIA so far as it relates to our remit.

Regards

[Redacted]

| Operations Officer
Scottish Natural Heritage | Dualchas Nàdair na h-Alba | Ground Floor | Stewart Building | Alexandra Wharf | Lerwick | Shetland | ZE1 0LL | t: [Redacted]
nature.scot – Connecting People and Nature in Scotland – @nature_scot

Appendix II: Licensing Process

Application

The application letter must detail how many licences are being sought, what marine licensable activities are proposed and what legislation the application is being made under.

Applicants are required to submit two hard copies of EA report together with an electronic copy in a user-friendly PDF format which will be placed on the Scottish Government website. If requested to do so by the Scottish Ministers the applicant must send to the Scottish Ministers such further hard copies of the EA report as requested. Applicants may be asked to issue the EA report directly to consultees and in which case consultee address lists should be obtained from the Scottish Ministers.

Ordinance Survey ("OS") Mapping Records

Applicants are requested at application stage to submit a detailed OS plan showing the site boundary and location of all deposits and onshore supporting infrastructure in a format compatible with The Scottish Government's Spatial Data Management Environment ("SDME"), along with appropriate metadata. The SDME is based around Oracle RDBMS and ESRI ArcSDE and all incoming data should be supplied in ESRI shape file format. The SDME also contains a metadata recording system based on the ISO template within ESRI ArcCatalog (agreed standard used by The Scottish Government); all metadata should be provided in this format.

Advertisement

The applicant must publish their proposals. Licensing information and guidance, including the specific details of the adverts to be placed in the press, can be obtained from the Scottish Ministers. If additional information is submitted further public notices will be required

EPS licence

European Protected Species ("EPS") are animals and plants (species listed in Annex IV of the Habitats Directive) that are afforded protection under The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) and The Conservation of Offshore Marine Habitats and Species Regulations 2017. All cetacean species (whales, dolphins and porpoise) are European Protected Species. If any activity is likely to cause disturbance or injury to a European Protected Species a licence is required to undertake the activity legally.

A licence may be granted to undertake such activities if certain strict criteria are met:

- there is a licensable purpose;
- there are no satisfactory alternatives, and;
- the actions authorised will not be detrimental to the maintenance of the population of the species concerned at favourable conservation status in their natural range.

Applicants must give consideration to the three fundamental tests and should refer to the guidance on the protection of marine European Protected Species for more detailed information in relation to Scottish Inshore Waters. Applicants may choose to apply for an EPS licence following the determination of the marine licence application and once construction methods have been finalised, however it is useful to include a shadow EPS assessment within the EA.

Basking sharks are also afforded protection under the Wildlife & Countryside Act 1981 (as Amended by the Nature Conservation (Scotland) Act 2004), and as such the applicant should consult with MSLOT on the requirement for a licence to disturb basking sharks.

Appendix III: Cable Guidance – Required Submissions

The installation, protection and decommissioning of transmission cables are controlled by:

- Marine (Scotland) Act 2010;
- Marine and Coastal Access Act 2009; and
- Scotland's National Marine Plan ("SNMP").

The requirements set out in this guidance will ensure applications are in compliance with the above regulations and policy. Deviations from these requirements are liable to result in delays in processing your application as well as the potential requirement for further consultation and assessment.

Further documentation, supplied at the time of a marine licence application, should be all of the following:

- Construction Method Statement;
- Cable Burial Plan;
- Fisheries Liaison and Mitigation Action Plan;
- Communication Strategy;
- Post Installation Survey Plan; and
- Decommissioning Plan.

More detail on what these should include are provided below.

Construction Method Statement

The EA will reduce the degree of design flexibility required and that the detail will be further refined in a Construction Method Statement ("CMS") to be submitted to the Scottish Ministers, for their approval, before works commence.

Cable Burial Risk Assessment / Plan

To avoid interference with legitimate users of the sea and to protect the asset, in accordance with the SNMP there is a presumption in favour of cable burial. As such, marine licence applications should also be accompanied by a Cable Burial Plan which should include the following information:

- evidence of advice from fishing representatives and other marine users;
- depth profiles of any burial (provision of shapefiles);
- data and analysis of survey data to justify not burying; and
- detail of how the cable will be protected.

Fisheries Liaison and Mitigation Action Plan ("FLMAP")

The EA will detail a Fisheries Liaison and Mitigation Action Plan (FLMAP) which should include the following information:

- Fisheries Liaison Officer credentials;

- must be applicable to all legitimate users of the sea – not just commercial fishing; and
- must not be date-specific to allow for timeline shifts and should refer to times in relation to installation works.

Communication Strategy

The EA will detail a Communication Strategy which should include the following information:

- Notice to Mariners;
- notice to fishermen to allow for gear clearance;
- Kingfisher bulletin;
- MCA / radio notices;
- timing of each of the above relative to project timings; and
- method of handling information relating to updates and problems.

Post Installation Survey Plan

The EA will detail a Post Installation Survey Plan which should include the following information:

- immediate post-lay survey and longer term survey and inspection programme;
- proposed timescales;
- survey type / details;
- mitigation if spans or movement found; and
- provision of proposed inspection timetable for all assets (if available).

Appendix IV: Gap Analysis

Applicant to complete:

Consultee	Summary of response (key concern)	Response from applicant	Action required	Evidence sent to MS LOT