CAITHNESS – MORAY HVDC REINFORCEMENT

FISHERIES LIAISON AND MITIGATION ACTION PLAN

Revision	Date	Prepared by	Reviewed by	Approved By
11	4/2/2019	Redacted	Redacte	Redact
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Contents

Revision 11 note (all revisions highlighted in yellow):

GLOSSARY

ABB	ABB AB (the Contractor)
CFE	Controlled Flow Excavation
FLMAP	Fisheries Liaison & Mitigation Action Plan
FLM	Fisheries Liaison Manager
FLOWW	Fishing Liaison with Offshore Wind and Wet Renewables
FLR	Fisheries Liaison Representative
FPV	Fall Pipe Vessel
HVDC	High Voltage Direct Current
RIFG	Regional Inshore Fisheries Group
KISCA	Kingfisher Information Service Cable Awareness
MCA	Maritime & Coastguard Agency
NLB	Northern Lighthouse Board
SCUK	Subsea Cables UK
SDR	Source Data Recording
SFF	Scottish Fishermen's Federation
SHET	Scottish Hydro Electric Transmission Plc. (The Client)
SSE	Scottish & Southern Energy
UKHO	United Kingdom Hydrographic Office

1 INTRODUCTION

1.1 FOREWORD

This latest revision (rev.11) of the Fisheries Liaison Mitigation Action Plan (FLMAP) has been updated to reflect the requirements to extend the duration of the construction period for the project to the end of August 2019, and to allow for variations in the installation methodology.

Additional discussion on the effects of the works on fish and fisheries is described in Caithness-Moray HVDC CFE and rock placement appraisal which is included with this application.

The FLMAP sets out the fisheries liaison and mitigation action measures to be implemented on the Caithness – Moray HVDC Reinforcement subsea cable circuit ("the cable").

The FLMAP sets out the liaison procedures that will be followed prior to, during and after the installation of the cable. These procedures have been established to ensure that the cable is planned, installed and operated as safely as possible in accordance with the licence consent conditions for the project.

SHET were granted authorisation from the regulator, ofgem, in Summer 2014 to proceed to project implementation (i.e. construction, commissioning and operation). The project is required to improve and reinforce the electricity transmission connection between Caithness & Moray (and onwards to the rest of the UK electricity network) to enable connection with new renewable generation capacity.

1.2 PURPOSE OF REPORT

The potential effects of the cable on marine activities and the marine environment were considered in two separate assessments. The first, for the southern section of the cable (from Portgordon to a point north of Smith Bank) was conducted in 2009 with subsequent updates and the second, for the northern section of cable (from Noss Head to a point north of Smith Bank) was conducted in 2011.

A further Environmental Appraisal has been carried out in late 2017, mid-way through the project implementation to reflect changes which result from the requirement to increase the amount of rock armour projection within 12nm of the Moray and Caithness coast.

A further assessment has been carried out in January 2019 to consider the potential impact of changes to the duration of the construction works and installation methods.

As a result of the evidence presented in these assessments, Marine Scotland specified a licence condition that required the production of a FLMAP. The FLMAP has therefore been produced to ensure that ABB and SHET have a mitigation plan in place for the project that meets the relevant marine licence requirements (including any additional licence requirements that may be applied as a result of the change in duration or installation method) set out by the Scottish Government. These conditions are included in Appendix A. The function of the FLMAP is therefore to address the potential effects highlighted in these assessments and identify how to minimise and mitigate potential adverse impacts on local fishing communities.

The FLMAP has been drawn up in accordance with industry and Government guidance for fisheries liaison (detailed in Section 3).

1.3 REPORT REVISION AND CONSULTATION

Following on from the initial project authorisation, in early 2015, SHET initiated regular meetings with representatives of the fishing industry and Marine Scotland to discuss the project. Information from these meetings has informed the FLMAP. It has also drawn on the approach adopted in the FLMAP documents produced elsewhere in Scotland for similar projects subject to similar licence requirements.

The FLMAP has been issued to the fishing industry organisations as part of the formal consultation process that commenced in 2015. Responses to the FLMAP were considered and reflected in subsequent revisions to the FLMAP, in accordance with the marine licence conditions for the cable.

A list of the organisations that were consulted on the FLMAP is presented at Appendix B. All direct communication with these organisations, with the exception of the Notices to mariners, will be via the FLM. The FLMAP will be revised and re-issued for information on a regular basis as necessary.

This revision of the FLMAP (rev.11) reflects the updated project timeline and installation methods.

2 PROPOSED WORKS

SHET's contractor, ABB have appointed NKT Cables as the Contractor for the HVDC portion of the project (including subsea and land cable and HVDC converters).

The proposal is to install a HVDC electricity transmission cable circuit across the Moray Firth between Noss Head near Wick in Caithness and Portgordon in Moray. The installed circuit comprises two HVDC cables and a single fibre optic cable. A cross section of the cable configuration is presented in Figure 1 below:

Figure 1: Cable bundle cross-section

The two cables will be bundled together and will be installed wherever possible in a trench. The overall subsea cable length is 113km. The cable route is shown in Figure 2 below.

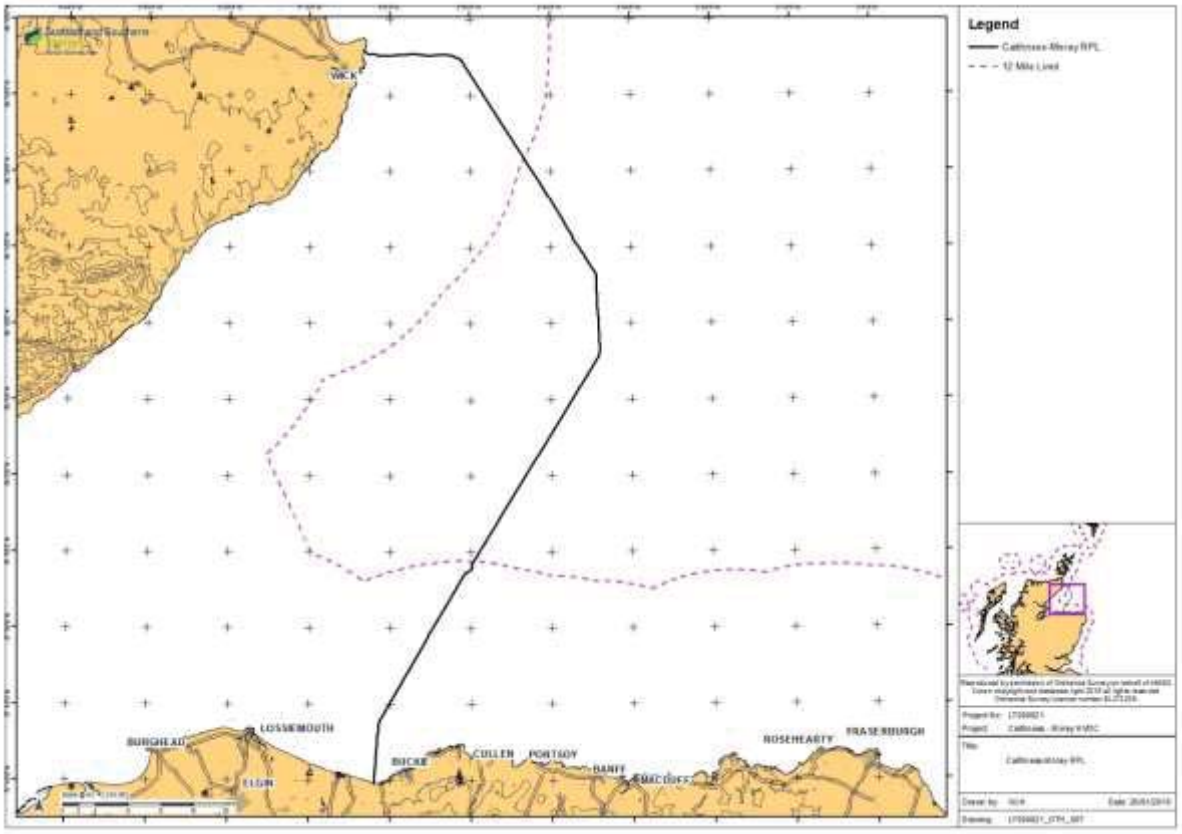


Figure 2: Caithness – Moray cable route.

2.1 INSTALLATION AND BURIAL

In brief, the proposed cable laying method will involve boulder clearance and the creation of a temporary 1.8m deep trench across the Moray Firth by a trenching plough. The cables will then be laid in this trench. The trench will then be mechanically backfilled and any areas of cable that are not buried to a depth of at least 1m will be protected using rock armour. However, over the horse mussel bed within the Noss Head Marine Protected Area (MPA), trenching and rock placement is prohibited. In this area, proprietary protective ducting will encase the cable as it crosses it as an alternative to rock.

Surveys will be undertaken to verify cable position, mechanical backfill and rock placement profiles.

Revised burial arrangements following trenching operations

Along the majority of the cable route (including most areas beyond 12nm), the target trenching depth was reached. In other places, where this was not achieved by trenching, target depths have been achieved by the use of jet trenching. However, in some areas the trench depth remains inadequate and jet trenching is not possible. In these areas, the cable is currently surface laid or laid within the trench (albeit a shallower trench than intended).

In order to protect the cable in these areas, it is now intended to increase the amount of rock placement in order to ensure adequate protection of the cable in areas where target trench depths were not reached.

Following the cable backfilling campaign in Q1 2018 whereby lateral positional issues were encountered during backfilling, (note this does not relate to rock placement). The lateral positional issues resulted in all backfill work being suspended and a programme of re-engineering, modifications and extensive offshore trials in September / October 2018 was undertaken to identify the cause and suitable steps taken to prevent.

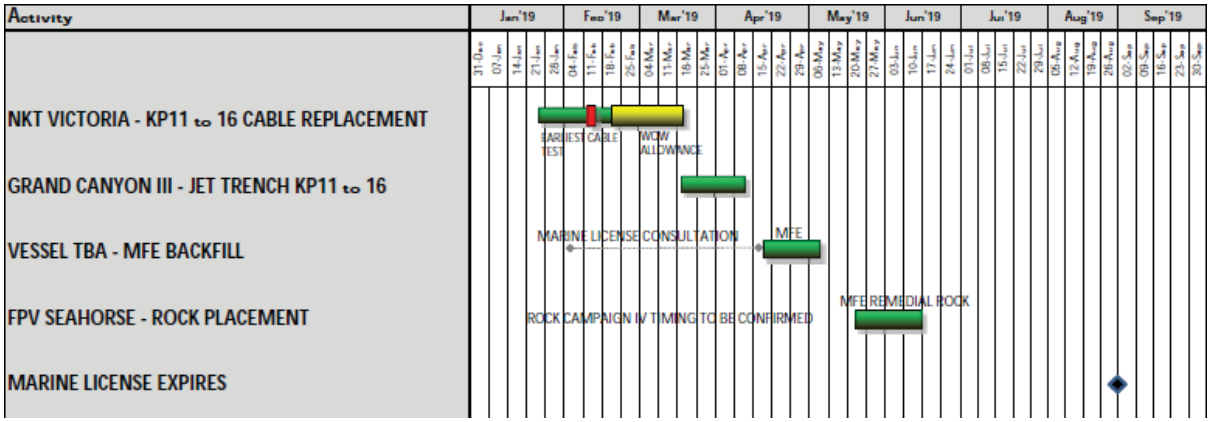
Following suspension of backfill operations, during April 2018, subsequent testing of the HVDC cables, a fault was identified. A temporary repair was performed to allow commissioning to take place of the HVDC convertors which will be replaced by a permanent repair in Q1 2019. The associated method statement sets out the methods currently being utilised facilitate the cable repair and subsequent burial and protection.

February 2019 updated burial strategy:

Following conclusion of the offshore trials, the decision was taken by NKT not use the SCAR plough for backfiling of the pre-cut trench as originally intended. Subsequently two methods of trench backfill have been identified as suitable alternatives, Controlled Flow Excavation (CFE) which will be used to mobilise sediment from the pre-cut berms back into the trench and the placement of crushed rock, of an agreed and suitable grade, using a Fall Pipe Vessel (FPV) into the trench.

2.2 INSTALLATION PROGRAMME

Below is the proposed timeline for the remaining works.



2.3 FISHERY INTERACTIONS

The cable route would unavoidably cross some important fishing grounds in the Moray Firth, including demersal trawl grounds, scallop grounds and inshore shellfish grounds. The principal fishing activity along the cable route is dredging for scallops (*Pecten maximus*) in the central part of the Firth, a seasonal (June to November) trawl fishery for squid (*Loligo forbesi*) off the southern coast of the Moray Firth and trawling for *Nephrops norvegicus* (Dublin bay prawns or langoustines) particularly in the waters just offshore of the southern and northern ends of the cable. In the most part, this activity is carried out by larger vessels (over 10m). This may include vessels from ports outside of the Moray Firth and nearby regions.

The other significant fishery is potting (creeling) activity carried out by inshore boats (under 10m) based at fishing ports in the Moray Firth region. This activity mainly overlaps with the

proposed cable route in coastal waters near the two cable landfalls. These fisheries target shellfish such as lobster (*Homarus gammarus*), brown crab (*Cancer pagurus*) and whelk (*Buccinum undatum*).

Further details including fleet characteristics, fishing effort charts and landing statistics are set out in SHET's Fisheries Socio-economic Review document No. LT000021-RPT-075 which was submitted to Marine Scotland as part of the licensing process.

Updated fishery intensity charts using VMS data from 2016 are available, along with a review of the impact of the additional work on commercial fisheries in:

- Caithness-Moray HVDC Link: Additional cable replacement and remediation works Environmental Appraisal report.

3 FISHERIES LIAISON STRATEGY

3.1 FISHERIES LIAISON MANAGER

Guidance for fisheries liaison has been published by SCUK in 2012. This guidance recommends that a FLM is appointed and retained through the life of a project, either as an employee of the cable operator or a specialised third party contractor / consultant. The role of the FLM is to liaise between the cable operator and the fishing industry during survey and installation period to communicate and where possible mitigate potential hazards to fishing during these.

The approach to fisheries liaison is based upon both the approach set out in SCUK guidance and also, where applicable the FLOWW publication "Recommendations For Fisheries Liaison - Best Practice Guidance for Offshore Renewable Developers" (BERR, May 2008), and is consistent, where applicable, with the revised guidance issued by the Crown Estate in January 2014.

It should be noted that some slightly different terminology is used in the SCUK and FLOWW guidance documents relevant to this FLMAP. The differences are summarised in the table below and the choice of terminology used in this project is underlined:

Task	SCUK	FLOWW
Professional advisor appointed and retained by developer & contractor to provide guidance on fisheries issues.	Fishery Liaison Manager (FLM)	Company Fishery Liaison Officer (CFLO)
Nominated fishing industry representative(s) located ashore who will be the point of contact for ongoing fishing matters.	Fishery Liaison Representative (FLR)	Fishing Industry Representative (FIR)

From the outset, SHET have considered that the FLM for this project should be an independent party, capable of providing informed and unbiased advice. Where necessary, ABB will secure the services of guard vessels to ensure that the cable installation proceeds smoothly and safely.

SHET has appointed Telesecure Ltd to provide fisheries liaison services to this project and they have appointed Mr. Tristan Southall to act as FLM. Both Telesecure Ltd and the appointed FLM have good relationships with the many of the fishing organisations along the cable route, as well as many years of experience working with the fishing industry. Telesecure Ltd is well placed to coordinate the liaison work and to provide objective expert advice to both SHET and ABB. A schematic illustration of the approach to fisheries liaison that will be used in this project is shown in Figure 3 below.

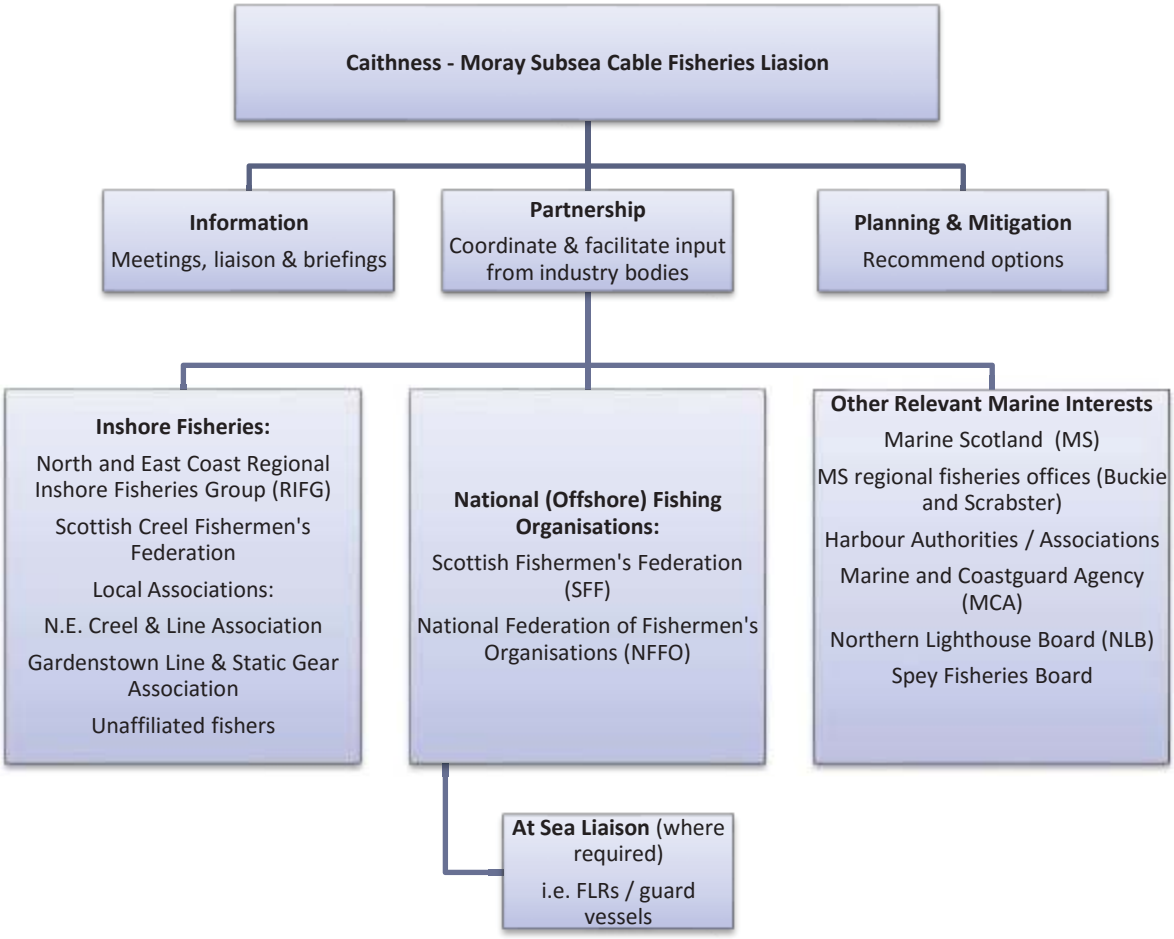


Figure 3: Fisheries liaison strategy

3.2 FISHERIES LIASION REPRESENTATIVE / GUARD VESSELS

In addition to a FLM, it is also considered to be good practice, where required, to employ the services of guard vessels during the construction phase of a project. Guard vessels are used to protect the ongoing installation works from possible adverse impacts with, or on, fishing vessels that may encroach upon the working area.

ABB have procured via subcontract guard vessels for deployment where they consider this necessary. It is expected that guard vessels will be deployed during the installation activities at nominal spacing of between 10 km and 25km (dependent upon vessel speed). The guard vessel subcontract was procured by ABB according to the following criteria (although the final detail of the selection process remained the responsibility of ABB):

- A fair and open tendering process was followed prior to the appointment of any supplier of guard vessels, in order to ensure the provision of best value to electricity customers.

- Vessels are of sufficient seaworthiness and equipped to a suitable standard meeting appropriate safety requirements to enable them to carry out the required duties safely and effectively. These requirements are set out in the following guidelines:
  - SFF Marine Safety Forum Guard Vessel Good Practice for UK Fishing Vessels.
  - The SFF/NFFO Guard Vessel Operational Procedures Manual

  These documents provide non-obligatory guidance only to enable ABB to develop guard vessel operating procedures and where there are areas of potential or actual conflict of interest, then alternative actions will be adopted by ABB at their own discretion to prevent such conflict arising.
- All guard vessels will be fitted with satellite tracking such that SHET and stakeholders can monitor their number and position.

Furthermore, SHET has engaged local shore-based inshore fishing liaison representatives in Caithness and Moray to facilitate communications with the local inshore fleets.

4 MITIGATION & ACTION PLAN

4.1 COMMUNICATION

It is a licence consent condition raised by the Scottish Government that advance notice of activities is provided to mariners. ABB and SHET recognise the critical importance of clear and effective communication. There are a number of situations where clear and effective communication is required to equally ensure the safety of navigation and efficient installation activities. Details of when and how communication will be undertaken are set out below:

4.1.1 Notice of construction activities

Details of the works will be promulgated to all appropriate maritime users, through NtM and/or radio navigational warnings and publication in appropriate bulletins to comply with the conditions in the marine licences. The NtMs will be issued using the UKHO hydrographic note form H102 at the stages of the cable installation set out below, or as required:

- HDD works
- boulder clearance
- pre-cut trenching
- cable laying
- trench backfill
- post lay jet trenching (repair section)
- rock placement
- additional surveys.

Form H102 will be sent by email as set out below:

To: Source Data Receipt at UK Hydrographic Office, Kingfisher Information Services

CC: Marine Scotland

Scottish Hydro Electric Transmission (SHET) – Lead Project Manager, Fisheries Liaison Officer & Marine Consents Manager

ABB – Project Installation Manager & Deputy Project Installation Manager

Aberdeen Coastguard Operations & Maritime Rescue Coordination Centre (MRCC)

Buckie Harbour Master

Cromarty Firth Port Authority

Joint Nature Conservation Committee (JNCC)

MacDuff Harbour Master

North & East Coast Regional Inshore Fisheries Group

Northern Lighthouse Board

Portgordon Harbour Master

Peter Smith (FIR for Portgordon static gear fishermen)

Port of Inverness Harbour Master

Scottish Natural Heritage (SNH)

Scottish Fishermen's Federation

Whale and Dolphin Conservation

Wick Harbour Master

Hugh MacKay (FIR for Wick static gear fishermen)

Each NtM will contain full details of the vessel, location, activities, contact details etc.

NtMs will be issued at least 20 days prior to an activity's start date to allow inclusion in the Kingfisher Fortnightly Bulletin.

However, 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 NtMs will be issued by ABB.

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, an update will be issued by email to Source Data Receipt at the UK Hydrographic Office and copied to the distribution list set out above.

It is intended that the operations will be carried in accordance with the marine licences. However, in the unlikely event that a significant change to these operations becomes apparent to the extent that compliance may not be achievable, an update will be issued by email to Marine Scotland as soon as is reasonably possible setting out the details of the change and its potential impact on the marine licence conditions. Should this change result in the creation of a hazard to users of the sea, the process for NtM updates and radio navigation warnings set out above will be followed. No work outwith the license conditions will be undertaken without the prior agreement of Marine Scotland.

Furthermore, with specific respect to commercial fishing activities, the following will be implemented:

Notices to static gear fishermen

The static gear fishermen will receive the NtMs as set out above. However, further specific liaison between SHE T's static gear fishing industry representatives in Wick and Portgordon and the fishermen who will be affected by the installation operations will take place to agree the detailed arrangements for removal of static gear. This will include details of dates and numbers of creels. This liaison takes place nominally one week prior to the planned commencement of the installation operations.

All inshore static gear fishermen will be provided with a notification of the delay to operations. Any arrangements in place to support the inshore fishermen with cost incurred as a result of the requirement to move static fishing gear, will continue for the duration of the project extension.

Notices to mobile gear fishermen

The mobile gear fishermen will receive the NtMs as set out above. However, further specific liaison between SHE T's FLM and the fishermen representative body, the SFF, will take place to ensure that they are given a minimum of 24 hours reminder that their gear requires to be a sufficient distance from the working area(s) of vessels of restricted mobility.

4.1.2 Notice of Hazards

ABB and SHET will provide information about any temporary or on-going potential hazards to fishermen and fishing activity that may arise during the construction and operation of the cable. This information will be communicated by:-

- Using radio and telephone equipment to alert any and all fishing vessels in the vicinity of the hazard immediately that its existence is known.
- Installing appropriate temporary navigation warnings of the hazard (lighting, buoyage and / or use of guard vessels) as soon as is practicable.
- Issuing hazard notices to fishermen, representative organisations and agents as soon as practicable, identifying the nature of the hazard and its location.

In addition, the methods of communication listed in 4.1.1, as appropriate, shall be used to provide information about hazards. The level of detail and the timing of hazard notices shall be sufficient to allow fishermen to avoid interaction with the hazard. The licence also requires that, in the event of the licensee becoming aware of information indicating that any part of the licensed works has become a danger to navigation or protection of legitimate users of the sea, the licensee shall immediately inform the licensing authority, Maritime and Coastguard Agency (MCA), UK Hydrographic Office (UKHO), Northern Lighthouse Board (NLB) and the Kingfisher Information Service Offshore Renewables and Cable Awareness (KIS-ORCA) to communicate the hazard to the maritime community. The licensee shall be liable for all costs.

4.1.3 Final Installation Coordinates

Once installation is completed, the as-laid route of the installed cable (and a cable corridor of 500m either side of it) shall be communicated as a hazardous area for anchoring to Marine Scotland, MCA, UKHO, NLB, the Kingfisher Information Service Cable Awareness (KISCA) and the UK International Cable Protection Committees in accordance with licence conditions (i.e. within 1 month of the installation of each section of the cable, subject to operational constraints). The fishing industry shall be informed of the installed route in accordance with the licence conditions.

Information about the cable route shall be communicated using the methods listed in item 4.1.1 as appropriate and in addition details of the cable route shall be provided to enable it to be shown on hydrographic charts.

The cable is marked on the latest edition of the UKHO chart 115 and on the latest update to the KisOrca.

4.1.4 Notice of Maintenance Activity

The schedule of any maintenance, survey or repair activities will be well publicised to fishermen in advance as set out in 4.1.1.

4.2 MITIGATION

ABB and SHET will implement measures to mitigate the potential impact of the construction and operation of the cable in line with national guidance for cable operators as follows:

4.2.1 Cable burial

The cable shall be buried as per the approved design and in accordance with any requirements set out in the relevant Marine Licence conditions. This will be to a minimum depth of lowering (DoL) = 0.6m, or where less, the shortfall will be made up by rock placement to the required 0.6m depth. However where cable trench back fill has occurred due to seabed process, natural backfill, and a depth of cover (DOC of circa. 0.50m) or greater has been achieved, no further intervention will take place, rather, the trench will be left to backfill naturally. This will be confirmed through post installation survey(s).

4.2.2 Hazard Mitigation

ABB and SHET will take all practicable steps to remove and/or remedy any hazards to fishing activity and/or navigational safety that are created during the construction and operation of the cable. Removal and remediation measures will include, as determined appropriate:-

- Removal of hazards from the seabed where practicable.
- Marking the location of hazards that cannot be removed or remediated with appropriate navigational marks at sea and/or on hydrographic charts.
- Notification to UKHO and Kingfisher Information Service.
- Informing fishermen of any specific areas where additional protection using rock placement was used (by direct communication using e-mail, internet and other media to inform representative bodies along the route, and also to inform fishermen who have registered their interest in the project with the FLM).
- A 500m exclusion zone either side of the cable during the installation period as agreed at the meetings with Marine Scotland and SFF on 25th April 2016 and 17th August 2016.

4.2.3 Post-installation survey

There will be a post-installation survey of the cable route to determine that it is free of obstructions that may be hazardous to navigation and legitimate users of the sea.

4.2.4 Post Installation Fishing Restrictions

As indicated above, the installation process will result in the cable being buried to a depth of lowering of at least 0.6m, and where less than this, to be covered in rock armour. This protection is designed to ensure that the cable does not prove a hazard to navigation and to safeguard the cable integrity by the provision of shallow gradient side slopes using graded material. However, anchoring or towing of demersal trawls and dredges on or over the cable route should be avoided. The cable route and coordinates with be clearly communicated, as described above and it is expected that mobile gear vessels will use this information to avoid towing gears over the installed cable route.

By contrast, static gear fisheries, in particular inshore pot (creel) fisheries pose less of a risk of damage (either to gear or cable) and therefore there is an expectation that these will continue to be laid on the seabed on and around the cable route.

4.2.5 Loss of fishing gear

ABB and SHET shall respond to the loss of any fishing gear along the cable route in accordance with the SCUK guidance in force at the time of the loss.

4.2.6 Maintenance Mitigation

Any cable maintenance that involves the exposure of the cable must include reburial and notification of any new hazards or changes to the cable route in accordance with the relevant sections of the FLMAP. The duration of these activities will be kept to a minimum to mitigate the extent of any exclusions.

APPENDIX A: LICENCE CONDITIONS

This document has been prepared with reference to the licence conditions in Marine Scotland Licence 04368/16/0 (Noss to 12nm – all deposits), Marine Scotland Licence 04878/13/0 (Portgordon to 12nm – all deposits) and Marine Scotland Licence 06043/16/0 (outside 12nm rock deposits only). Marine Scotland Licence 06600/18/0 (additional rock placement).

The following tables set out the conditions that relate to fishing activities and provide reference to the sections of the FLMAP where a condition is considered.

A.1 Noss to 12nm marine licence

Licence details	**Reference to FLMAP**
Prior to Commencement of the Works	
3. The licensee must ensure that details of operations relating to the licence are promulgated to all appropriate maritime users, through notice(s) to mariners (NtM) and/or radio navigational warnings and publication in appropriate bulletins, no later than one week prior to the commencement of cable laying operations. The NtM and publications must, as a minimum, state the nature and the proposed timescale of any works carried out in the marine environment relating to the deposit of substances or objects listed in part one of the licence.	Section 4.1.1
7. The licensee must, in consultation with the Scottish Fishermen's Federation, provide a Fisheries Liaison Plan and Mitigation Action Plan for the licensing authority to review before any works are undertaken.	The FLMAP document
During the Works	
29. The licensee must ensure that local Notices to Mariners are issued as necessary following any local navigation issues arising as a result of operations relating to the licence.	Section 4.1.2
35. In the event of the licensee becoming aware of information indicating that any part of the licensed works has become a danger to navigation or protection of legitimate users of the sea, the licensee must, as soon as reasonably practicable, inform the licensing authority, the Maritime and Coastguard Agency (MCA), Northern Lighthouse Board (NLB) and the Kingfisher Information Service Offshore Renewables and Cable Awareness (KIS-ORCA) to communicate the hazard to the maritime community. The licensee is responsible for the payment of all costs to discharge this condition.	Section 4.1.2

39. The licensee must ensure that real-time data relating to cable laying, rock protection or post-lay surveying, either by the immediate dissemination of data or by the presence of a fisheries observer on board any vessel undertaking such work, is provided to relevant recipients (to be agreed by the licensing authority) .	Section 3.2
On Completion of Works	
44. The licensee must, following the completion of all operations relating to the licence, notify the licensing authority, Maritime and Coastguard Agency (MCA), UK Hydrographic Office (UKHO), Northern Lighthouse Board (NLB), the Kingfisher Information Service Offshore Renewables and Cable Awareness (KIS-ORCA) and the UK International Cable Protection Committees of the cable route and a 500m zone either side of it as a hazardous area for anchoring. The Licensee must notify the Licensing Authority of the notifications at the time they are made.	Section 4.1.3

A.2 Portgordon to 12nm marine licence

Licence details	**Reference in FLMAP**
Prior to Commencement of the Works	
4. The licensee must ensure that details of operations relating to the licence are promulgated to all appropriate maritime users, through notice(s) to mariners (NtM) and/or radio navigational warnings and publication in appropriate bulletins, no later than one week prior to the commencement of cable laying operations. The NtM and publications must, as a minimum, state the nature and the proposed timescale of any works carried out in the marine environment relating to the deposit of substances or objects listed in part one of the licence.	Section 4.1.1
8. The licensee must appoint a Fisheries Liaison Officer (FLO) no later than eight weeks prior to the commencement of operations relating to the licence, and notify the licensing authority of the identity and credentials of the FLO by including such details in the Environmental Management Plan (EMP) (see condition 11). The responsibilities of the FLO must include, but are not limited to:–	Section 3.1
a) Establishing and maintaining effective communications between the licensee, local fishermen and their representatives and any other relevant stakeholders;	
b) Communicating the overall project and any amendments to the plans and protocols and site environmental procedures to relevant stakeholders as per condition 8a;	

c) Provision of information to relevant stakeholders as per condition 8a relating to the safe operation of fishing activity along the cable corridor, as defined in part 1 of the licence, including having in place local Fisheries Liaison and Mitigation Action Plans;	
d) Ensuring that information is made available and circulated to relevant stakeholders as per condition 8a in a timely manner to minimise interference with fishing operations and other users of the sea; and	
e) Familiarisation with relevant guidelines produced by Subsea Cables UK and a knowledge of the Crown Estate FLOWW (The Fishing Liaison with Offshore Wind and Wet Renewables Group) guidelines where they appropriately apply.	
9. The licensee must submit a Fisheries Liaison and Mitigation Action Plan (FLMAP) to the licensing authority no later than eight weeks prior to the commencement of operations relating to the licence, for their written approval. It is not permissible for operations relating to the licence to commence prior to the granting of such approval. In granting such approval, the licensing authority may consult any such advisors, organisations or stakeholders as may be required at their discretion. All operations relating to the licence must be undertaken and operated in accordance with the approved FLMAP. Any updates or amendments made to the FLMAP by the licensee must be submitted, in writing, by the licensee to the licensing authority for their written approval. The FLMAP must consider the FLOWW guidelines where they appropriately apply.	The FLMAP document
<u>During the Works</u>	
30. The licensee must ensure that local Notices to Mariners are issued as necessary following any local navigation issues arising as a result of operations relating to the licence.	Section 4.1.2
36. In the event of the licensee becoming aware of information indicating that any part of the licensed works has become a danger to navigation or protection of legitimate users of the sea, the licensee must, as soon as reasonably practicable, inform the licensing authority, the Maritime and Coastguard Agency (MCA), Northern Lighthouse Board (NLB) and the Kingfisher Information Service Offshore Renewables and Cable Awareness (KIS-ORCA) to communicate the hazard to the maritime community. The licensee is responsible for the payment of all costs to discharge this condition.	Section 4.1.2

38. The licensee must ensure that real-time data relating to cable laying, rock protection or post-lay surveying, either by the immediate dissemination of data or by the presence of a fisheries observer on board any vessel undertaking such work, is provided to relevant recipients (to be agreed by the licensing authority).	Section 3.2
On Completion of Works	
42. The licensee must, following the completion of all operations relating to the licence, notify the licensing authority, Maritime and Coastguard Agency (MCA), UK Hydrographic Office (UKHO), Northern Lighthouse Board (NLB), the Kingfisher Information Service Offshore Renewables and Cable Awareness (KIS-ORCA) and the UK International Cable Protection Committees of the cable route and a 500m zone either side of it as a hazardous area for anchoring. The Licensee must notify the Licensing Authority of the notifications at the time they are made.	Section 4.1.3

A.3 Outside 12nm marine licence

Licence details	**Reference in FLMAP**
Prior to Commencement of the Works	
4. The licensee must ensure that details of the works are promulgated to all appropriate maritime users, through notice(s) to mariners (NtM) and/or radio navigational warnings and publication in appropriate bulletins, no later than one week prior to the commencement operations relating to the licence. The NtM must, as a minimum, state the nature and the proposed timescale of any works carried out in the marine environment relating to the deposit of substances or objects listed in part one of the licence.	Section 4.1.1
8. The licensee must appoint a Fisheries Liaison Officer (FLO) no later than eight weeks prior to the commencement of operations relating to the licence, and notify the licensing authority of the identity and credentials of the FLO by including such details in the Environmental Management Plan (EMP) (see condition 11). The responsibilities of the FLO must include, but are not limited to:–	Section 3.1
a) Establishing and maintaining effective communications between the licensee, local fishermen and their representatives and relevant stakeholders;	
b) Communicating the project and any amendments to the plans and protocols and site environmental procedures to relevant stakeholders as per condition 8a;	
c) Provision of information to relevant stakeholders as per condition 8a relating to the safe operation of fishing activity in areas where additional protection has been installed as defined in	

part 1 of the licence, including having in place local Fisheries Liaison and Mitigation Action Plans;	
d) Ensuring that information is made available and circulated to relevant stakeholders as per condition 8a in a timely manner to minimise interference with fishing operations and other users of the sea; and	
e) Familiarisation with relevant guidelines produced by Subsea Cables UK and a knowledge of the Crown Estate FLOWW (The Fishing Liaison with Offshore Wind and Wet Renewables Group) guidelines where they appropriately apply.	
9. The licensee must submit a Fisheries Liaison and Mitigation Action Plan (FLMAP) to the licensing authority no later than eight weeks prior to the commencement of operations relating to the licence, for their written approval. It is not permissible for the works to commence prior to the granting of such approval. In granting such approval, the licensing authority may consult any such advisors, organisations or stakeholders as may be required at their discretion. All operations carried on under the licence must be undertaken and operated in accordance with the approved FLMAP. Any updates or amendments made to the FLMAP by the licensee must be submitted, in writing, by the licensee to the licensing authority for their written approval. The FLMAP must consider the FLOWW guidelines where they appropriately apply.	The FLMAP document
<u>During the Works</u>	
28. The licensee must ensure that local Notices to Mariners are issued as necessary following any local navigation issues arising as a result of operations relating to the licence.	Section 4.1.2
34. In the event of the licensee becoming aware of information indicating that any part of the licensed works has become a danger to navigation or protection of legitimate users of the sea, the licensee must, as soon as reasonably practicable, inform the licensing authority, the Maritime and Coastguard Agency (MCA), Northern Lighthouse Board (NLB) and the Kingfisher Information Service Offshore Renewables and Cable Awareness (KIS-ORCA) to communicate the hazard to the maritime community. The licensee is responsible for the payment of all costs to discharge this condition.	Section 4.1.2

36. The licensee must ensure that real-time data relating to additional protection requirements or post-lay surveying, either by the immediate dissemination of data or by the presence of a fisheries observer on board any vessel undertaking such work, is provided to relevant recipients (to be agreed by the licensing authority).	Section 3.2
<u>On Completion of Works</u>	
40. The licensee must, following the completion of all operations relating to the licence, notify the licensing authority, Maritime and Coastguard Agency (MCA), UK Hydrographic Office (UKHO), Northern Lighthouse Board (NLB), the Kingfisher Information Service Offshore Renewables and Cable Awareness (KIS-ORCA) and the UK International Cable Protection Committees of the cable route and a 500m zone either side of it as a hazardous area for anchoring. The Licensee must notify the Licensing Authority of the notifications at the time they are made.	Section 4.1.3

A.4 Additional rock marine licence

Licence details	Reference in FLMAP
Prior to Commencement of the Works	
3 The licensee must ensure that local mariners and fishermen's organisations are made fully aware of the activity through local notices to mariners, clearly stating the nature and duration of the works.	Section 4.1.1
During the works	
33 The licensee must ensure that all operations relating to the licence must be undertaken and operated in accordance with the approved Fisheries Liaison and Mitigation Act ion Plan (FLMAP) (submitted to the Licensing Authority in support of the application dated 22 December 2017). Any updates or amendments which are proposed to be made to the FLMAP by the licensee must be submitted, in writing, by the licensee to the licensing authority for their written approval	As described in the FLMAP
On completion of the works	
38 The licensee must, following the completion of all operations relating to the licence, notify the licensing authority, Maritime and Coastguard Agency (MCA), UK Hydrographic Office (UKHO), Northern Lighthouse Board (NLB), the Kingfisher Information Service Offshore Renewables and Cable Awareness (KIS-ORCA) and the UK International Cable Protection Committees of the cable route and a 500m zone either side of it as a hazardous area for anchoring. The Licensee must notify the Licensing Authority of the notifications at the time they are made	As described in the FLMAP

APPENDIX B: LIST OF FLMAP CONSULTEES

Marine Scotland

Northern Lighthouse Board

Maritime and Coastguard Agency

The Scottish Fishermen's Federation

North and East Coast Regional Inshore Fisheries Group (including the following member associations):

- Moray Firth Inshore Fishermen's Association
- Gardenstown Line & Static Gear Association

North East Creel & Line Association

Scottish Creel Fishermen’s Federation

National Federation of Fishermen’s Organisations

Scottish Fishermen's Organisation

Other non-affiliated inshore operators

Spey Fisheries Board