Scottish Hydro Electric Power Distribution plc

2025 Route Survey Licensing Support

Argyll EPS Risk Assessment Addendum

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CONTENTS

ACRONYMS / ABBREVIATIONS

ACRONYM / ABBREVIATION	DEFINITION
CWSH	Coastal West Scotland and Hebrides
dB	Decibel
DD	Decimal Degrees
DDM	Degrees and Decimal Minutes
DMS	Degrees, Minutes and Seconds
EPS	European Protected Species
FCS	Favourable Conservation Status
HWDT	Hebridean Whale and Dolphin Trust
IAMMWG	Inter-Agency Marine Mammal Working Group
JNCC	Joint Nature Conservation Committee
km	Kilometre
LSE	Likely Significant Effect
m	Metre
MBES	Multi-Beam Echosounder
MD-LOT	Marine Directorate – Licensing Operations Team
MHWS	Mean High Water Springs
MMO	Marine Mammal Observer
MMPP	Marine Mammal Protection Plan
MU	Management Unit
NCMPA	Nature Conservation Marine Protected Area
PAM	Passive Acoustic Monitoring
PCPT	Piezocone Penetration Testing
PSMP	Protected Species Mitigation Plan
ROV	Remotely Operated Vehicle

ACRONYM / ABBREVIATION	DEFINITION
SAC	Special Area of Conservation
SBES	Single-Beam Echosounder
SBP	Sub-Bottom Profiler
SCANS	Small Cetaceans in European Atlantic waters and the North Sea
SCOS	Special Committee on Seals
SHEPD	Scottish Hydro Electric Power Distribution plc
SMWWC	Scottish Marine Wildlife Watching Code
SPA	Special Protection Area
UAV	Unmanned Aerial Vehicle
UK	United Kingdom
USBL	Ultra-Short Baseline
WGS84	World Geodetic System 84

1 INTRODUCTION

1.1 Overview

Scottish Hydro Electric Power Distribution plc (SHEPD) holds a licence under the Electricity Act 1989 for the distribution of electricity in the north and west of Scotland, including the islands. It has a statutory duty to provide an economic and efficient system for the distribution of electricity and to ensure that its assets are maintained to ensure a safe, secure and reliable supply to customers.

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

In June 2023, SHEPD applied for a European Protected Species (EPS) licence and a basking shark (*Cetorhinus maximus*) derogation licence to undertake geophysical surveys, as well as testing and calibration of survey equipment, covering 24 cable routes within the Argyll Scottish Marine Region[1] (see Section 1.2 below; Figure 1-1). An EPS and Protected Sites and Species Risk Assessment was prepared to support the licence applications (Xodus Document No. A-303128-S04-A-REPT-002: Argyll EPS Risk Assessment).

On 1st September 2023, Marine Directorate – Licensing Operations Team (MD-LOT), acting on behalf of the Scottish Ministers, granted SHEPD with an EPS licence (EPS/BS-00010461) under the Conservation (Natural Habitats, &c.) Regulations 1994 permitting disturbance of harbour porpoise (*Phocoena phocoena*), bottlenose dolphin (*Tursiops truncatus*), minke whale (*Balaenoptera acutorostrata*), Risso's dolphin (*Grampus griseus*), short-beaked common dolphin (*Delphinus delphis*), killer whale (*Orcinus orca*) and white-beaked dolphin (*Lagenorhynchus albirostris*) in the Argyll Marine Region. On 1st September 2023 SHEPD was also granted a basking shark licence (EPS/BS-00010462) under the Wildlife and Countryside Act 1981 (as amended). These Argyll regional EPS and basking shark licences are valid from 4th September 2023 to 31st July 2028.

SHEPD is now seeking to vary the existing EPS and basking shark licences in order to undertake geophysical survey activities within the following new cable survey corridors within the Argyll Marine Region:

- Kintyre – Islay (*potential for two cable routes*) (Figure 1-2); and
- Mainland – Kerrera – Mull (*route crosses through Kerrera*) (Figure 1-2).

This document is an Addendum to the Argyll EPS Risk Assessment (Xodus Document No. A-303128-S04-A-REPT-002) (hereafter 'Argyll EPS Risk Assessment Addendum') to support applications to vary the existing EPS and basking shark licences. This Argyll EPS Risk Assessment Addendum considers the potential for new impacts arising from the geophysical, geotechnical and environmental survey activities in the new cable survey corridors. Furthermore, this Argyll EPS Risk Assessment Addendum reviews and assesses any material changes to the baseline and content of the Argyll EPS Risk Assessment as a result of the addition of new cable survey corridors.

Associated geotechnical sampling of the new cable survey corridors is considered exempted from the requirement of a Marine Licence under the Marine Licensing (Exempted Activities) (Scottish Inshore Region) Order 2011, but required notification will be given to MD-LOT following consultation with relevant stakeholders to confirm the exemption conditions are met. Assessment of the potential impacts from the geotechnical sampling on designated sites is provided in Section 4.

[1] *The Scottish Marine Region for Argyll is defined in Section 4 of the Scottish Marine Regions Order 2015. Further information and a map of the Scottish Marine Regions is available online at: https://www.gov.scot/publications/marine-planning-regional-boundaries/.*

1.2 Cable Survey Corridors

The Argyll EPS Risk Assessment covers 24 cable routes contained within 19 cable survey corridors in the Argyll Marine Region, with a total area of 216.2 square kilometre (km^2) (see Table 1-1). The addition of the Kintyre – Islay and Mainland – Kerrera – Mull cable survey corridors results in a new overall area of 922.1 km^2 (see Table 1-1). An overview of all cable survey corridors is presented in Figure 1-1 with the Kintyre – Islay and Mainland – Kerrera – Mull cable survey corridors highlighted in Figure 1-2.

The 24 cable routes within the Argyll Marine Region covered by the existing licences, in addition to the three new cable routes (in **blue**), are as follows:

- Mainland – Kerrera (1);
- Mainland – Kerrera (2);
- Mainland – Lismore;
- Eilean Loain;
- Lochaline – Mull;
- Mainland – Jura;
- Seil – Easdale;
- Eilean Righ;
- Kerrera – Mull (2);
- Kerrera – Mull (Replacement);
- Kintyre – Gigha;
- Kintyre – Gigha (Replacement);
- Coll – Tiree;
- Coll – Tiree (Replacement);
- Islay – Colonsay;
- Islay – Orsay;
- Jura – Islay;
- Mull – Calve Island;
- Mull – Coll (1);
- Mull – Coll (2);
- Mull – Ulva;
- Mull – Iona;
- Mull – Iona (Replacement); and
- Bridgend Islay;
- **Kintyre – Islay (1);**
- **Kintyre – Islay (2); and**
- **Mainland – Kerrera – Mull.**

The coordinates for the existing licensed cable survey corridors and the new cable survey corridors are provided in Appendix A – Cable Survey Corridor Coordinates.

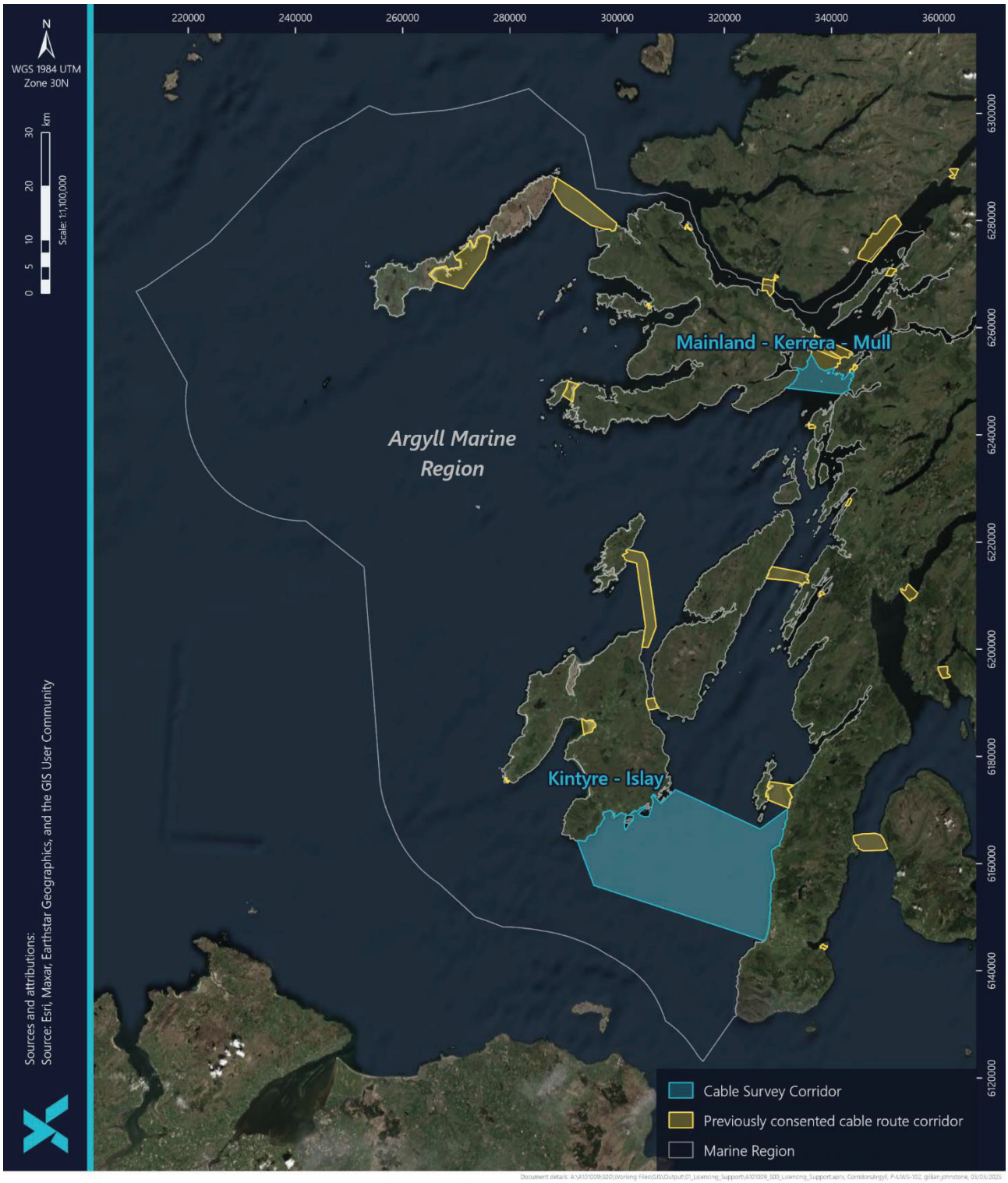

Figure 1-1 Cable Survey Corridors in the Argyll Marine Region

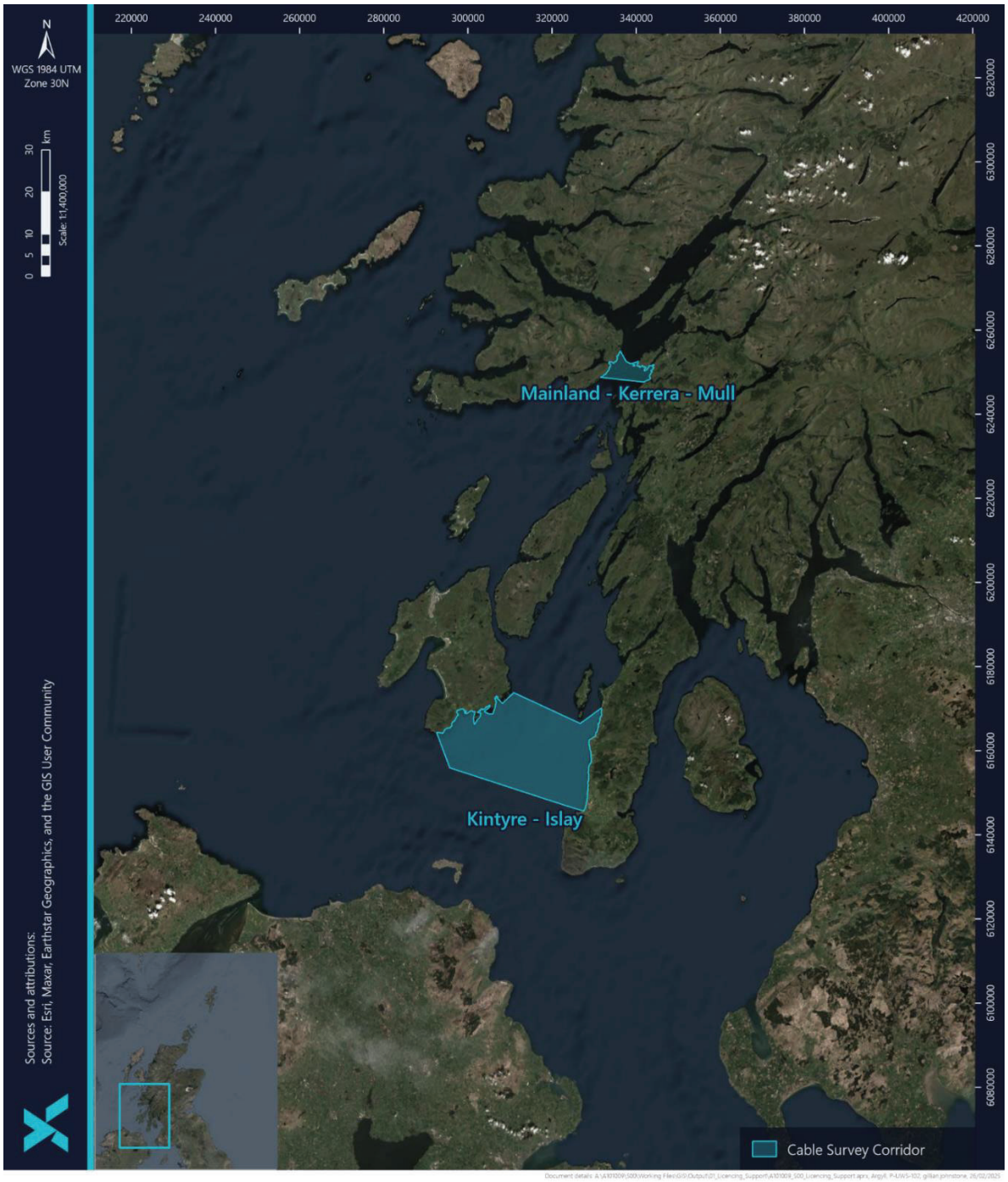

Figure 1-2 The Kintyre – Islay and Mainland – Kerrera – Mull Cable Survey Corridors

Table 1-1 Area of the cable survey corridors including the new cable survey corridors

CABLE SURVEY CORRIDOR	CABLE ROUTE(S)	AREA (km²)
**New cable survey corridor.*		
Bridgend, Islay	Bridgend, Islay	5.0476
Coll - Tiree	Coll - Tiree	47.5127
Eilean Loain	Eilean Loain	0.4967
Eilean Righ	Eilean Righ	0.7694
Islay - Colonsay	Islay - Colonsay	38.0450
Islay - Orsay	Islay - Orsay	0.3206
Jura - Islay	Jura – Islay	3.5166
	Islay – Jura	
Kerrera - Mull 2	Kerrera - Mull 2	15.5488
Kerrera - Mull Replacement	Kerrera - Mull Replacement	18.0218
Kintyre – Islay*	Kintyre – Islay 1	662.16
	Kintyre – Islay 2	
Kintyre - Gigha	Kintyre - Gigha	16.8605
Mainland - Jura	Mainland - Jura	15.3589
Mainland - Kerrera	Mainland - Kerrera	0.6785
Mainland - Kerrera 2	Mainland - Kerrera 2	1.0411
Mainland – Kerrera – Mull*	Mainland – Kerrera – Mull	43.79
Mainland - Lismore	Mainland - Lismore	1.7710
Mull - Calve Island	Mull - Calve Island	0.4510
Mull - Coll	Mull – Coll	43.8988
	Coll – Mull	
Mull - Iona	Mull - Iona	5.7534
Mull - Ulva	Mull - Ulva	0.3346
Seil - Easdale	Seil - Easdale	0.7655
	TOTAL	922.1

2 DESCRIPTION OF SURVEY ACTIVITIES

2.1 Summary of Survey Activities

The proposed geophysical, geotechnical and environmental survey activities for the new cable survey corridors will be the same as detailed in Section 2 of the Argyll EPS Risk Assessment (Xodus Document No. A-303128-S04-A-REPT-002). The survey activities will comprise of a vessel based geophysical survey, vessel based geotechnical / benthic survey and shore based intertidal surveys.

As identified in the original assessment, the vessel based geophysical survey has potential to cause disturbance from underwater noise associated with Ultra-Short Baseline (USBL) positioning systems and Sub-Bottom Profilers (SBP) as well as vessel presence. The vessel based geotechnical / benthic survey will involve vibrocoring, sediment grab sampling and Piezocone Penetration Testing (PCPT)) which has the potential to result in seabed disturbance. The benthic grab sampling and geotechnical surveys will collect < 1 cubic metre (m^3) of sediment per sample, and will be subject to a Marine Licence Exemption notification following stakeholder consultation.

The shore based intertidal survey activities include landfall topographic surveys, intertidal benthic surveys (using hand operated grab samplers) and geotechnical landfall investigations (using hand augers and hand dug trial pits); these activities will not involve the use of any shore-based plant, vessels or vehicles. Therefore, there is no potential for these activities to cause injury or disturbance to cetaceans, however it is acknowledged that there is potential for disturbance to Eurasian otter (*Lutra lutra*) and seals associated with human presence in the intertidal region. Nevertheless, these activities do not require a Marine Licence or a Marine Licence Exemption, but disturbance will be considered further in this assessment.

2.2 Activity Schedule

The survey activities for the existing licensed cable survey corridors in the Argyll Marine Region are scheduled to be undertaken between 1st August 2023 and 31st July 2028, spanning 1,827 days (see Section 2.2.4 of the Argyll EPS Risk Assessment). The actual duration of the survey activities will be shorter at approximately 280 days which includes 187 days for weather downtime, transit between sites and waiting on tides, with an additional 24 hours allowed for equipment calibrations for each survey mobilisation.

The survey activities for the new cable survey corridors will be undertaken between 2nd June 2025 and 31st July 2028, a period of 1,156 days in total. It is anticipated that the duration of the survey activities will be approximately 170 days which includes 113 days allowance for weather downtime, transit between sites and waiting on tides, with an additional 24 hours allowed for equipment calibrations for each survey mobilisation.

3 EPS AND OTHER PROTECTED SPECIES RISK ASSESSMENT

This Section describes and assesses the potential risk to EPS and other protected species as a result of the survey activities within the new cable survey corridors. Furthermore, this Section considers whether there have been any material changes to the baseline or assessments carried out for the Argyll EPS Risk Assessment. The legislative context underpinning EPS (i.e. cetaceans and otters) and other protected species including basking sharks, pinnipeds and birds is detailed in Section 1.4 of the Argyll EPS Risk Assessment (Xodus Document No. A-303128-S04-A-REPT-002). No legislative changes have been introduced since the original assessment was carried out.

3.1 EPS Baseline

3.1.1 Cetaceans

The Argyll EPS Risk Assessment identifies the following species of cetacean as regularly sighted within the Argyll Marine Region (Hebridean Whale and Dolphin Trust (HWDT), 2018):

- Harbour porpoise;
- Bottlenose dolphin;
- Minke whale;
- White-beaked dolphin;
- Risso's dolphin;
- Killer whale; and
- Common dolphin.

The original population parameters, including estimated density and abundance, of the cetaceans likely to be present in the Argyll Marine Region were sourced from the Small Cetaceans in European Atlantic waters and the North Sea (SCANS) III survey (June 2021; Hammond *et al.*, 2021), survey block G (West Scotland). The SCANS-III survey block G results presented data for harbour porpoise, minke whale and bottlenose dolphin; however, there was insufficient data for all other cetacean species identified (see Table 3-2 of the Argyll EPS Risk Assessment).

Since the original Argyll EPS Risk Assessment, the SCANS-IV data has been published (September 2023; Gilles *et al.*, 2023), in which the cable survey corridors fall within survey block CS-F. In addition to providing an updated density and abundance estimates for harbour porpoise, minke whale and bottlenose dolphin, data was provided for Risso's dolphin and common dolphin which were previously listed as having 'insufficient data' in the Argyll EPS Risk Assessment.

Furthermore, the Argyll EPS Risk Assessment presents the management unit (MU) biogeographical population estimate based on the Inter-Agency Marine Mammal Working Group (IAMMWG) updated abundance estimates for cetacean MUs in United Kingdom (UK) waters (Revised March 2022) (IAMMWG, 2022). There have been no further updates to this source and therefore the data presented remains applicable.

Table 3-1 below presents an updated assessment of the proportion of the MU potentially affected by the additional geophysical survey activities, based on the new SCANS-IV data (Gilles et al., 2023) and updated overall area of the cable survey corridors. The results of the updated assessment indicate that the estimated density (individuals / km^2) of harbour porpoise, bottlenose dolphin and minke whale has reduced when compared with the SCANS-III data. The, the estimated abundance of cetaceans which may be present in the cable survey corridors has increased, due to the larger spatial extent of the overall survey area. As a result of the proportion of the MU potentially affected has also

increased; however, this value is still < 0.1 % for minke whale, Risso's dolphin and common dolphin and < 1 % for harbour porpoise (Table 3-1).

For bottlenose dolphin, the updated assessment utilises the Coastal West Scotland and Hebrides (CWSH) MU, which is derived from the Thompson *et al.*, (2011) population estimate. It is noted that the bottlenose dolphins in the west of Scotland are known to reside in the Sound of Barra (Grellier and Wilson, 2003). Furthermore, Thompson *et al.*, (2011) demonstrates that there is a patchy distribution of bottlenose dolphin throughout the west of Scotland. Given the behaviour of bottlenose dolphin in the region as described above, the estimated abundance within the survey area as presented within Table 3-1 (i.e. 39.2 individuals) is considered unrealistic, as it is unlikely for the majority of the pod to be present within proximity to the survey activities all at the same time. As such while the proportion of the MU potentially affected appears high (87.1%) the actual risk to the bottlenose dolphin population within the CWSH MU remains small.

Table 3-1 Updated assessment of the proportion of the MU potentially affected by survey activities based on the revised overall survey area and SCANS-IV data (Gilles et al., 2023). The SCANS-III density data (Hammond et al., 2021) which was used in the Argyll EPS Risk Assessment is presented for comparison

SPECIES	ESTIMATED DENSITY (individuals / km^2) (Hammond *et al.*, 2021) (SCANS-III)	ESTIMATED DENSITY (Individuals / km^2) (Gilles *et al.*, 2023) (SCANS-IV)	ESTIMATED ABUNDANCE WITHIN THE SURVEY AREA (922.1 km^2)	MU / BIOGEOGRAPHICAL POPULATION ESTIMATE (IAMMWG, 2022)	PROPORTION OF THE MU POTENTIALLY AFFECTED BY ACTIVITIES (%)	MATERIAL CHANGE TO OUTCOME OF ASSESSMENT?
Harbour porpoise	0.336	0.201	185.4	24,305	0.76	No
Bottlenose dolphin	0.1206	0.0425	39.2	45	87.1	No
Minke whale	0.0271	0.0137	12.6	10,288	0.12	No
White-beaked dolphin	*Insufficient data*	*Insufficient data*	*Insufficient data*	34,025	*Insufficient data*	No
Risso's dolphin	*Insufficient data*	0.0027	2.5	8,687	0.03	No
Killer whale	*Insufficient data*	*Insufficient data*	*Insufficient data*	Insufficient data	*Insufficient data*	No
Common dolphin	*Insufficient data*	0.0544	50.2	57,417	0.09	No

3.1.2 Otters

A baseline characterisation of the otter in the Argyll Marine Region is described in Section 3.2.3 of the Argyll EPS Risk Assessment. The coastal areas within the Argyll Marine Region, such as east of the Sound of Jura and along the coasts of the Sound of Mull, provide suitable quality habitat for otter resulting in a number of designated sites (i.e. Special Area of Conservations (SACs)) (see Section 4 below). This description is considered applicable to the baseline for the new cable survey corridors.

Potential impacts resulting from the survey activities include human presence during the intertidal survey, as further detailed in Section 3.3.1 below.

3.2 Other Protected Species Baseline

3.2.1 Basking Sharks

A baseline characterisation of the basking shark in the Argyll Marine Region is described in Section 3.3.1 of the Argyll EPS Risk Assessment. Basking sharks are seasonal visitors in Scottish waters, aggregating in the summer to breed, with peak sighting densities in the west coast of Scotland occurring in August (Witt *et al.*, 2012). The Argyll EPS Risk Assessment noted the presence of basking shark 'hotspots' (i.e. high density areas, > 3 sightings per hour) within the Sea of Hebrides around Mull, Tiree and Coll (Speedie *et al.*, 2009).

Basking sharks are considered to have low sensitivity to underwater sound given that they do not possess a swim bladder and therefore there will be no injurious impacts to basking sharks. Due to their size, slow swimming speeds and preference for swimming in coastal waters during the summer months, basking sharks are considered to be at potential risk of collision with vessels associated with the survey activities, as detailed further in Section 3.3.2 below.

3.2.2 Pinnipeds

The baseline characterisation for grey seal (*Halichoerus grypus*) and harbour seal (*Phoca vitulina*) in the Argyll EPS Risk Assessment, including the distribution, pupping and moulting seasons, is considered applicable to this Argyll EPS Risk Assessment Addendum. The pupping season for harbour seals occurs between mid-June to July with moulting in August. For grey seals, breeding occurs October through to December with moulting until early April. It is noted that since the time of writing the Argyll EPS Risk Assessment that the Special Committee on Seals (SCOS) 2022 report has been published which is considered the most up-to-date source on the latest status of UK seal populations (SCOS, 2022).

Argyll EPS Risk Assessment describes harbour seal and grey seal 'at-sea' density based on the Carter *et al.*, (2022) data. Carter *et al.*, (2022) is considered to be the most up-to-date source and therefore has been used in assessing the at-sea density of seals around the new cable survey corridors as illustrated in Figure 3-1 and Figure 3-2. The at-sea density of harbour seal ranges between 3 – 5 seals per 25 km^2 to 50 – 75 seals per 25 km^2 , while the at-sea density of grey seal is lower between 0 – 1 seals per 25 km^2 to 10 – 25 seals per 25 km^2.

Potential impacts resulting from the survey activities include vessel presence and underwater sound, as further detailed in Section 3.3.2 below.

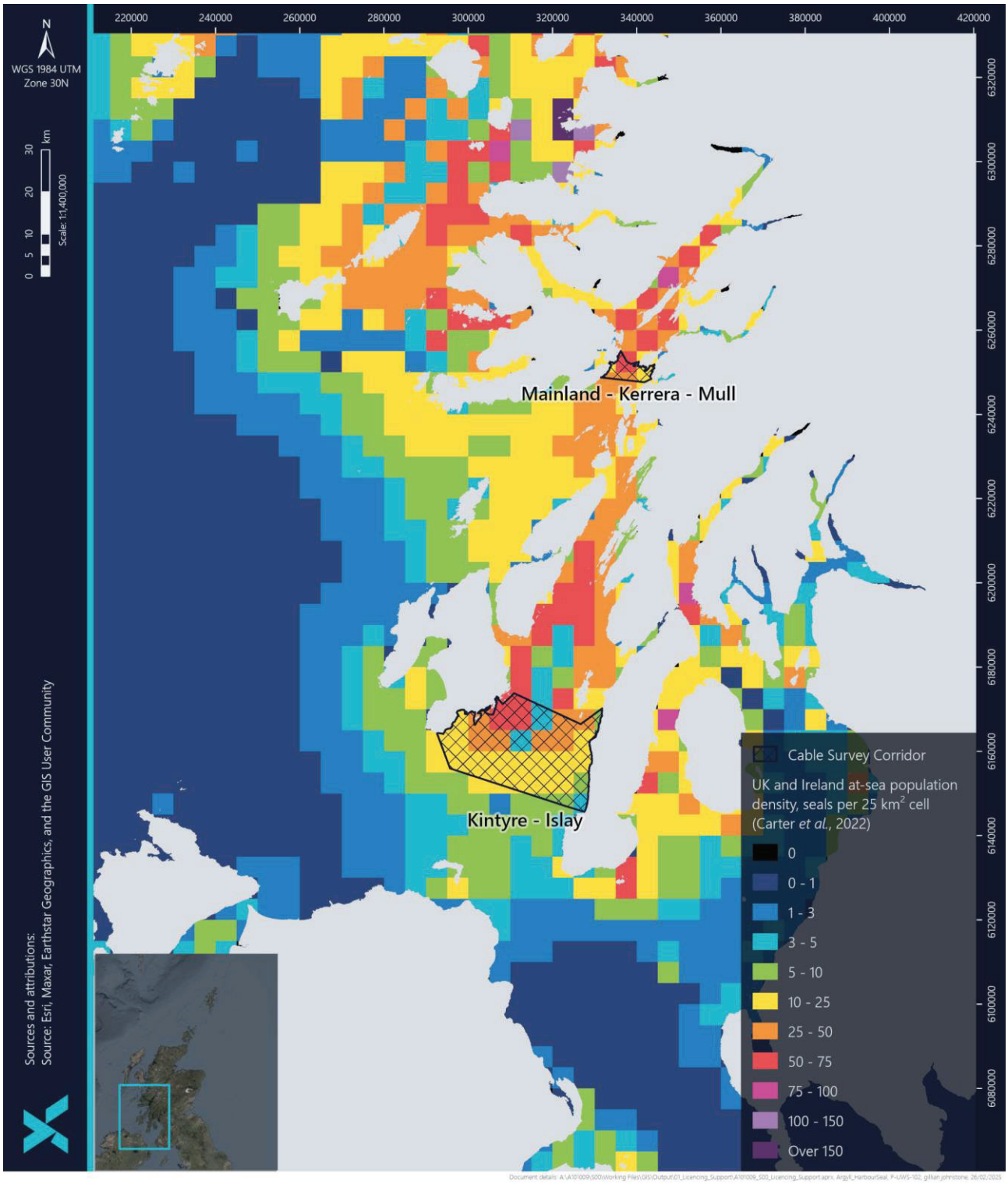

Figure 3-1 Harbour seal at-sea density (Carter et al., 2022)

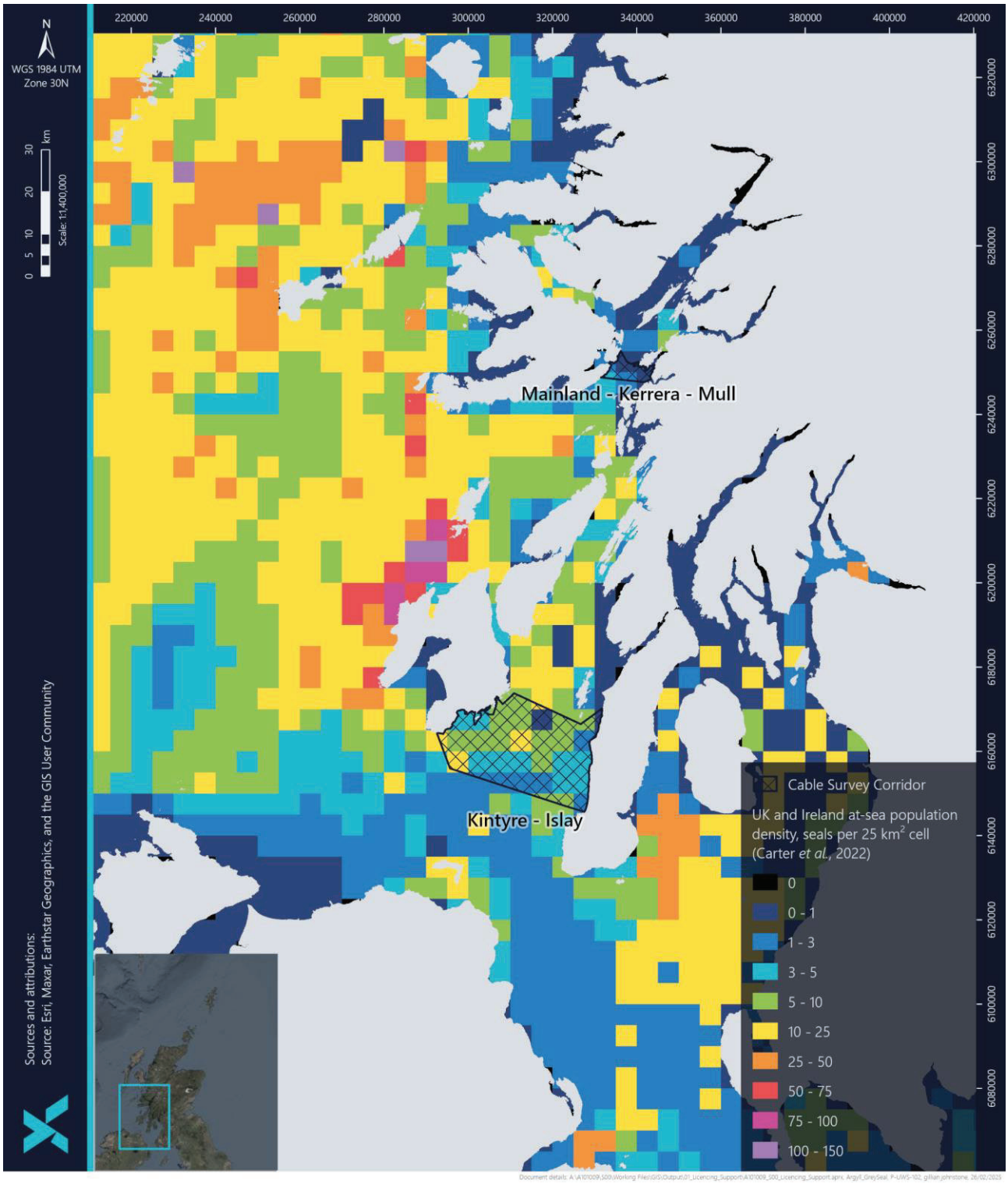

Figure 3-2 Grey seal at-sea density (Carter et al., 2022)

3.2.3 Seabirds

A baseline description for seabirds in the Argyll Marine Region is described in Section 3.3.2 of the Argyll EPS Risk Assessment. The Argyll EPS Risk Assessment notes that the west coast of Scotland provides important cliff and island habitats for nesting seabirds, resulting in the designation of Special Protection Areas (SPAs) for breeding colonies along the coastlines. Seabirds are considered to experience vulnerability to disturbance during the flightless moult period and during the breeding season (Pollock *et al.*, 2000). A description of the breeding seasons and nest occupancy for seabirds in Scottish waters is provided in Table 3-4 of the Argyll EPS Risk Assessment. Overall, the baseline characterisation for seabirds in the west coast of Scotland is considered applicable to this Argyll EPS Risk Assessment Addendum.

3.3 Additional Cable Survey Corridors Risk Assessment

3.3.1 Impacts to EPS

Cetaceans

Underwater sound propagation modelling was carried out as part of an underwater sound impact assessment in the Argyll EPS Risk Assessment (see Section 3.4). As described in Section 2.1 above, there will be no change to the geophysical survey methodology (i.e. equipment and specifications) that is currently licenced for the surveys within the Argyll Marine Region with regards to the surveys to be undertaken in the new cable survey corridors. Therefore the results of the underwater sound propagation modelling with regards to injury and disturbance impacts are applicable to this Argyll EPS Risk Assessment Addendum.

Furthermore, the mitigation measures detailed in the Argyll EPS Risk Assessment are applicable to this Argyll EPS Risk Assessment Addendum (see Section 5 below). Given the mitigation measures, there will be no injurious impacts to cetaceans as a result of the geophysical survey activities within the new cable survey corridors. While there is potential for disturbance, this is expected to be temporary, highly localised and limited to one or a few individuals of the local population and therefore will not result in any adverse impact to the Favourable Conservation Status (FCS) of any cetacean species. Nevertheless, SHEPD will submit a request to vary the existing EPS licence (EPS/BS-00010461) to account for the potential temporary, highly localised disturbance to cetaceans (see Xodus Doc No. A-100109-S00-A-NOTE-001). It should be noted that the licensable purpose and consideration of alternatives will not change with the request to vary the existing EPS licence.

Otters

There is potential for disturbance to otters resulting from nearshore activities (e.g. human presence during nearshore surveys); however, the nearshore survey activities to be undertaken for the new cable survey corridors will be the same as described for the currently licenced surveys within the Argyll Marine Region. Given that the mitigation measures ensure avoidance of any otter holts, layups and couches through pre-works surveys and a buffer (see Section 5.4), it is anticipated that there will be no adverse impacts to otter within the cable survey corridors. Thus, an EPS licence for otter will not be required.

Summary

The survey activities to be undertaken within the new cable survey corridors will not result in any adverse impacts to EPS (i.e. cetaceans and otter) in the Argyll Marine Region, and therefore there is no material change to the conclusions of the Argyll EPS Risk Assessment. As described above there will be no injurious impacts to cetaceans resulting from underwater noise; however, there is potential for highly localised, temporary disturbance to cetaceans and therefore SHEPD will submit a request to vary the existing EPS licence (EPS/BS-00010461) (see Xodus Doc No. A-100109-S00-

A-NOTE-001). As described above, the licensable purpose and consideration of alternatives will not change with the request to vary the existing EPS licence.

3.3.2 Impacts to Other Protected Species

Seals

The survey activities will not result in the catching or killing of seals, and thus the protection provided to harbour and grey seal by the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) will not be breached. There is potential for disturbance to seals where there are breeding colonies / pupping sites and/or designated seal haul-outs within proximity (i.e. 500 m) of the cable survey corridors; however, the potential impact on these protected sites is assessed in Section 4 below. As described above the nearshore survey activities to be undertaken within the cable survey corridors will be the same as described for the currently licenced surveys within the Argyll Marine Region. Given the implementation of the mitigation measures (Section 5.2), including avoidance of nearshore works within the vicinity to seal haul outs and breeding sites during the breeding and moulting seasons, the potential for disturbance to seals from human presence during nearshore survey activities is considered to be minimal and there will be no significant impact on seals.

Basking Sharks

There is potential for disturbance and/or collision risk as a result of vessel and human presence during survey activities. Collision risk increases with increasing vessel speed, and therefore vessels will be travelling at slow speeds resulting in a low risk of collision. Given the mitigation which will be implemented (Section 5.3), including monitoring, implementation of a mitigation zone and vessels travelling at slow speeds, the potential for disturbance is considered to be minimal and no significant impacts on basking sharks are anticipated. Nevertheless, SHEPD will submit a request to vary the existing basking shark derogation licence (EPS/BS-00010462) to account for the potential for the potential temporary, highly localised disturbance to basking shark (see Xodus Doc No. A-100109-S00-A-NOTE-001). It should be noted that the licensable purpose and consideration of alternatives will not change with the request to vary the existing basking shark derogation licence.

Birds

The survey activities will not result in harm to wild bird species, their eggs and nests, and thus the protection provided to seabirds by the Wildlife and Countryside Act 1981 and Nature Conservation (Scotland) Act 2004 will not be breached. There is potential for survey activities to coincide with the sensitive breeding and moulting periods for seabirds. As such, there may be disturbance to birds from the physical presence of vessels and humans, as well as disturbance from increased vessel light which may disorientate fledgling birds. Given the implementation of the mitigation measures (e.g. slow vessel speeds and measures to minimise lighting on board) (Section 5.5), there will be no significant impact on birds.

Summary

The survey activities within the cable survey corridors will not result in any material change to the assessment of impacts on other protected species (i.e. seals, basking sharks, seabirds) presented within the Argyll EPS Risk Assessment. Overall, there will be no significant adverse impacts on seals, basking sharks or seabirds given the implementation of mitigation measures (Section 5). There is potential for some temporary, highly localised disturbance of basking sharks and therefore SHEPD will submit a request to vary the existing basking shark derogation licence (EPS/BS-00010462) (see Xodus Doc No. A-100109-S00-A-NOTE-001). As described above, the licensable purpose and consideration of alternatives will not change with the request to vary the existing EPS licence.

4 PROTECTED SITES ASSESSMENT

A protected sites assessment has been carried out for the existing licenced cable survey corridors within Section 4 of the Argyll EPS Risk Assessment (Xodus Document No. A-303128-S04-A-REPT-002). The following Sections present an update to the protected sites assessment considering the potential effects on designated sites (including seal haul-outs) resulting from the vessel based geophysical surveys, vessel based geotechnical / benthic surveys and shore based intertidal surveys.

Additionally, an update to the cumulative and in-combination impacts assessment is presented in Section 4.3 below.

4.1 Selection Criteria for Assessment of Protected Sites

The criteria which has been used to select the designated sites where potential impacts need to be assessed is described in Section 4.1 of the Argyll EPS Risk Assessment. The following criteria applies:

- SACs and Nature Conservation Marine Protected Areas (NCMPAs) (including proposed and candidate sites) with cetaceans as qualifying features within 50 km of the cable survey corridors;
- SACs (including proposed and candidate sites) with harbour seal interests within 50 km of the cable survey corridors and breeding grey seal within 20 km of the cable survey corridors;
- Designated seal haul-outs or grey seal breeding sites that overlap with or located within 500 m of the cable survey corridors;
- SACs and NCMPAs (including proposed and candidate sites) with otter interests that overlap with or located within 500 m of the cable survey corridors;
- SPAs and NCMPAs (including proposed and candidate sites) with birds as qualifying features that overlap with or are located within 2 km of the cable survey corridors; or
- SACs and NCMPAs (including proposed and candidate sites) with seabed / benthic protected features that overlap with the cable survey corridors.

The designated sites located in the vicinity of the new cable survey corridors which have the potential to be impacted by the vessel based geophysical surveys, vessel based geotechnical / benthic surveys and shore based intertidal survey activities are detailed in Table 4-1 and illustrated in Figure 4-1. Where potential impacts are identified, mitigation measures have been considered based on site-specific protected features (as presented in Table 4-1; see Section 5).

As described above, the shore based intertidal survey activities will not involve the use of any shore-based equipment, vessels or vehicles and therefore is not considered a licensable activity and does not require a Marine Licence or Marine Licence Exemption.

Table 4-1 Protected Sites Within the Vicinity of the Cable Survey Corridors as per the Selection Criteria and Potential Connectivity (Joint Nature Conservation Committee (JNCC), 2025a)

CABLE CORRIDOR	PROTECTED SITE	REASON FOR SELECTION	DISTANCE TO CABLE SURVEY CORRIDOR[2] (km)	RELEVANT QUALIFYING FEATURES	POTENTIAL IMPACT PATHWAY	MITIGATION MEASURES	POTENTIAL FOR LIKELY SIGNIFICANT EFFECT
Kintyre – Islay	Sound of Gigha SPA	The site overlaps with the proposed cable corridor.	0	• Great northern diver (*Gavia immer*); • Common eider (*Somateria mollissima*); and • Red-breasted merganser (*Mergus serrator*).	Vessel based geophysical surveys	M13, M14, M15, M16.	**Vessel presence – Yes** Underwater noise – No
					Vessel based geotechnical / benthic surveys		Vessel presence – No Seabed disturbance - No
					Shore based intertidal surveys		Human presence – No
	The Oa SPA	The site overlaps with the proposed cable corridor.	0	• Red-billed chough (*Pyrrhocorax pyrrhocorax*).	Vessel based geophysical surveys	M13, M14, M15, M16.	Vessel presence – No Underwater noise – No
					Vessel based geotechnical / benthic surveys		Vessel presence – No Seabed disturbance - No
					Shore based intertidal surveys		Human presence – No
	South-East Islay Skerries SAC	The site overlaps with the proposed cable corridor.	0	• Harbour seal.	Vessel based geophysical surveys	M1, M2, M3, M4, M5, M6, M7.	Vessel presence – No **Underwater noise – Yes**
					Vessel based geotechnical / benthic surveys		Vessel presence – No Seabed disturbance - No
					Shore based intertidal surveys		**Human presence – Yes**

[2] *It should be noted that at-sea distances have been use for SACs and NCMPAs with marine qualifying features, while a straight-line distance has been applied to SPAs.*

CABLE CORRIDOR	PROTECTED SITE	REASON FOR SELECTION	DISTANCE TO CABLE SURVEY CORRIDOR[2] (km)	RELEVANT QUALIFYING FEATURES	POTENTIAL IMPACT PATHWAY	MITIGATION MEASURES	POTENTIAL FOR LIKELY SIGNIFICANT EFFECT
	Inner Hebrides and the Minches SAC	This site is located within 50 km of the proposed cable corridor.	7.6	• Harbour porpoise.	Vessel based geophysical surveys	M1, M2, M3, M4, M5, M6, M7.	Vessel presence – No **Underwater noise – Yes**
					Vessel based geotechnical / benthic surveys		Vessel presence – No Seabed disturbance - No
					Shore based intertidal surveys		Human presence – No
Mainland – Kerrera – Mull	Inner Hebrides and the Minches SAC	The site overlaps with the cable corridor.	0	• Harbour porpoise.	Vessel based geophysical surveys	M1, M2, M3, M4, M5, M6, M7.	Vessel presence – No **Underwater noise – Yes**
					Vessel based geotechnical / benthic surveys		Vessel presence – No Seabed disturbance - No
					Shore based intertidal surveys		Human presence – No
	Loch Sunart to the Sound of Jura NCMPA	The site overlaps with the cable corridor.	0	• Flapper skate (*Dipturus intermedius*); and • Quaternary of Scotland.	Vessel based geophysical surveys	N/A	Vessel presence – No Underwater noise – No
					Vessel based geotechnical / benthic surveys		Vessel presence – No **Seabed disturbance - Yes**
					Shore based intertidal surveys		Human presence – No
	Mull Oakwoods SAC	The site overlaps with the cable corridor.	0	• Otter; and • Western acidic oak woodland.	Vessel based geophysical surveys	M10, M11, M12	Vessel presence – No Underwater noise – No
					Vessel based geotechnical / benthic surveys		Vessel presence – No Seabed disturbance - No

CABLE CORRIDOR	PROTECTED SITE	REASON FOR SELECTION	DISTANCE TO CABLE SURVEY CORRIDOR[2] (km)	RELEVANT QUALIFYING FEATURES	POTENTIAL IMPACT PATHWAY	MITIGATION MEASURES	POTENTIAL FOR LIKELY SIGNIFICANT EFFECT
					Shore based intertidal surveys		Human presence – Yes
	Cnuic agus Cladach Mhuile SPA	The site overlaps with the cable corridor.	0	• <Redacted>).	Vessel based geophysical surveys	M13, M14, M15, M16.	Vessel presence – No Underwater noise – No
					Vessel based geotechnical / benthic surveys		Vessel presence – No Seabed disturbance - No
					Shore based intertidal surveys		Human presence – No
	Sea of the Hebrides NCMPA	This site is located within 50 km of the proposed cable corridor.	21.7	• Basking shark; and • Minke whale.	Vessel based geophysical surveys	M1, M2, M3, M4, M5, M6, M7, M8, M9.	Vessel presence – Yes Underwater noise – Yes
					Vessel based geotechnical / benthic surveys		Vessel presence – Yes Seabed disturbance - No
					Shore based intertidal surveys		Human presence – No
	Eileanan agus Sgeiran Lios mor SAC	This site is located within 50 km of the proposed cable corridor.	8.9	• Harbour seal.	Vessel based geophysical surveys	M1, M2, M3, M4, M5, M6, M7.	Vessel presence – No Underwater noise – Yes
					Vessel based geotechnical / benthic surveys		Vessel presence – No Seabed disturbance - No
					Shore based intertidal surveys		Human presence – No

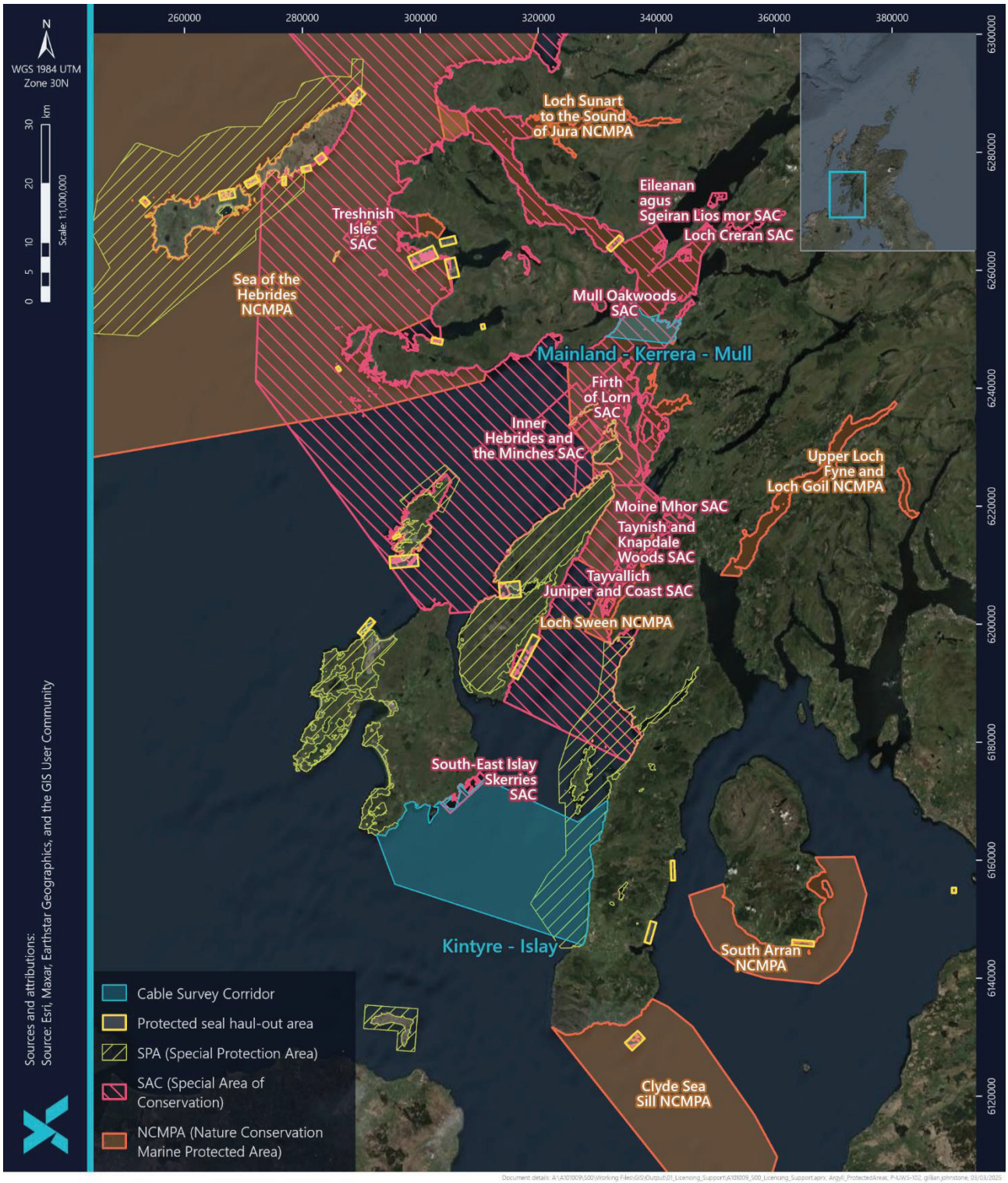

Figure 4-1 Protected Sites in the vicinity of the cable survey corridors

4.2 Assessment of Impacts on Designated Sites

4.2.1 Potential Impact on SACs with Seals as a Feature and Seal Haul-Out Sites

The Kintyre – Islay cable survey corridor overlaps with the South East Islay Skerries SAC, designated for harbour seal. The Mainland – Kerrera – Mull cable survey corridor is 8.9 km of the Eileanan agus Sgeiran Lios mor SAC, also designated for harbour seal. Harbour seals are most sensitive to disturbance during the pupping season from mid-June to July and moulting which begins in August. The proposed geophysical and geotechnical survey activities and associated vessel presence will be undertaken across three years spanning 2nd June 2025 to 31st July 2028, overlapping with the harbour seal pupping and moulting season. There are no other SACs with harbour seal as a feature within 50 km of the cable survey corridors, nor SACs with grey seal within 20 km of the cable survey corridors. Furthermore, there are no seal haul-outs located within 500 m of the cable survey corridors.

The Kintyre-Islay survey corridor overlaps the coastal South East Islay Skerries SAC and the south-east Islay coastline areas are extensively used as pupping, moulting and haul-out sites by the seals, which represent between 1.5% and 2% of the UK population (JNCC, 2025b). For the vessel based geophysical survey activities, there is no potential for LSE on the South East Islay Skerries SAC as a result of vessel presence given there is no material change from baseline vessel presence; however, LSE cannot be ruled out on the South East Islay Skerries SAC given the potential disturbance to seals in water from underwater noise. Furthermore, there is no potential for LSE on the South East Islay Skerries SAC as a result of the vessel based geotechnical / benthic survey activities.

There is potential for disturbance to seals hauled-out from human presence during shore based intertidal survey activities. Seals pups and mothers are particularly sensitive to disturbance when on land and in water, and any operations at the beach and intertidal area may prevent seals from hauling out on the beach. To mitigate for the potential impacts associated with shore based intertidal surveys, any survey activities within 500 m of the South East Islay Skerries SAC will be scheduled to take place outwith the peak harbour seal breeding season (mid-June – July, inclusive), where possible.

Where shore based surveys within 500m of the SAC during the harbour seal breeding period cannot be avoided, and subject to further consultation and agreement with NatureScot, a search of the intertidal survey area for seals will be undertaken prior to commencement of shore based intertidal survey activities. The shore based surveys will only be permitted to commence if seals are not found hauled out on the beach or in the water close to the intertidal survey area. The Scottish Marine Wildlife Watching Code (SMWWC) will also be followed, alongside the other relevant mitigation measures listed in Section 5.2. Overall, considering the short-term and transient nature of the survey activities, with the implementation of the mitigation measures, there will be no adverse effects on site integrity for the South East Islay Skerries SAC.

Furthermore, the potential for LSE cannot be ruled out on the Eileanan agus Sgeiran Lios mor SAC given the potential connectivity with harbour seals while at-sea. There is potential for disturbance to seals as a result of underwater noise associated with geophysical survey activities; however, any disturbance resulting from underwater noise will be temporary given the short-term and transient nature of the vessel based geophysical survey activities. A number of mitigation measures are proposed including, marine mammal monitoring, a pre-start search and implementation of a 500 m mitigation zone, as described in Section 5.2. It is noted that the 500 m mitigation zone may be reduced to 200 m in event of a need to avoid critical delay to the project; however, this would be subject to agreement with MD-LOT. Overall, considering the short-term and transient nature of the survey activities, with the implementation of the

mitigation measures, no adverse effect on the site integrity of the Eileanan agus Sgeiran Lios mor SAC is anticipated as a result of survey activities.

4.2.2 Potential Impact on SACs and NCMPAs with Cetaceans and Basking Shark as a Feature

The Mainland – Kerrera – Mull cable survey corridor overlaps with the Inner Hebrides and the Minches SAC, designated for harbour porpoise. Additionally, the Inner Hebrides and the Minches SAC is located 7.6 km from the Kintyre – Islay cable survey corridor. There are no other SACs with highly mobile megafauna within the connectivity range of 50 km.

For the vessel based geophysical survey activities, there is no potential for LSE as a result of vessel presence given there is no material change from baseline vessel presence; however, LSE cannot be ruled out given the potential disturbance to harbour porpoise from underwater noise. There is no potential for LSE as a result of the vessel based geotechnical / benthic survey activities or shore based intertidal surveys. As described in Section 3.3.1 above, underwater sound propagation modelling was carried out as part of the underwater sound impact assessment in the Argyll EPS Risk Assessment. The underwater sound impact assessment concluded that there would be no injurious impacts to cetaceans given the implementation of the pre-start search and 500 m mitigation zone (see Section 5.2). It was further concluded that there would be no significant disturbance impacts given that less than 0.1% of the biogeographical population of harbour porpoise would be impacted by sound-related disturbance. While the modelled level of disturbance is unlikely to affect the ability of any individual animal to survive or reproduce and will not have significant population-level impacts, it is acknowledged that a small number of harbour porpoise may experience some level of disturbance. Any disturbance is expected to be temporary, given the short-term and transient nature of the survey activities. Furthermore, any disturbance will be reduced through the mitigation measures in Section 5.2, including deployment of a Marine Mammal Observer (MMO), Passive Acoustic Monitoring (PAM), pre-start search and 500 m mitigation zone. Given the short-term and transient nature of the survey activities, as well as the mitigation measures which will reduce potential disturbance to harbour porpoise, no adverse effect on the site integrity of the Inner Hebrides and the Minches SAC is anticipated as a result of survey activities.

The Mainland – Kerrera – Mull cable survey corridor is located 21.7 km from the Sea of the Hebrides NCMPA, designated for basking shark and minke whale. There is potential disturbance to minke whale as a result of the underwater noise associated with vessel based geophysical survey activities. Furthermore, there is a potential for collision risk and disturbance to basking shark, resulting from vessel presence during the vessel based geophysical and geotechnical survey activities. As described above, the underwater noise impact assessment has concluded that there will be no injurious impacts to cetaceans and any potential for disturbance from underwater sound is considered to be temporary, highly localised and limited to one or a few individuals of the local population, provided the mitigation measures including a pre-start search, monitoring and implementation of a 500 m mitigation zone (Section 5.2).

The potential for collision risk and disturbance for basking shark is low, given that vessels will be travelling at slow speeds (i.e., ≤6 knots) in addition to the mitigation measures in Section 5.3, including the pre-start basking shark monitoring and a 500 m mitigation zone. Therefore, the vessel based geophysical and geotechnical survey activities are not considered capable of affecting (other than insignificantly) the conservation objectives of the Sea of the Hebrides NCMPA.

4.2.3 Potential Impact on NCMPAs with Benthic Features

The Mainland – Kerrera – Mull cable survey corridor overlaps with the Loch Sunart to the Sound of Jura NCMPA, which is designated for flapper skate and quaternary of Scotland features. Flapper skate lay their eggs on the seabed and therefore have the potential to be affected by the vessel based geotechnical / benthic survey activities which will interact with the seabed, e.g. benthic grab sampling. Given the relatively small footprints of these activities and volumes sediment which will be extracted during the sampling activity (< 1 m^3), and the video inspection preceding sediment sampling, any impacts on sensitive habitats or geological features will be avoided. Moreover, only a relatively small area will be impacted during benthic grab sampling, vibrocoring and PCPT activities. Therefore the vessel based geotechnical / benthic survey activities are not considered capable of affecting (other than insignificantly) the conservation objectives of the Loch Sunart to the Sound of Jura NCMPA.

4.2.4 Potential Impact on SACs with Otter as a Feature

The Mainland – Kerrera – Mull cable survey corridor overlaps with the Mull Oakwoods SAC, designated for otter and western acidic oak woodland. There is no potential for LSE on the Mull Oakwoods SAC as a result of the vessel based geophysical survey activities or vessel based geotechnical / benthic survey activities; however, the potential for LSE on the Mull Oakwoods SAC resulting from shore based intertidal surveys cannot be ruled out given the potential for disturbance to otters from human presence during the shore based intertidal survey activities. The shore based intertidal survey activities will be short-term in nature and therefore any disturbance will be temporary. The mitigation measures outlined in Section 5.4 will further reduce the potential for disturbance, including a pre-works otter survey conducted by an appropriately qualified ecologist. Furthermore, any otter holts, layups and couches will be identified and avoided by a 40 m buffer during shore based intertidal surveys. Given the short-term duration of the survey activities, as well as the mitigation measures to reduce disturbance to otter, no adverse effect on the site integrity of the Mull Oakwoods SAC is anticipated as a result of the shore based intertidal survey activities.

4.2.5 Potential Impacts on SPAs with Birds as a Feature

The Kintyre – Islay cable survey corridor overlaps with the Sound of Gigha SPA, designated for great northern diver, common eider and red-breasted merganser. There is therefore potential to disturbance to great northern diver, common eider and red-breasted merganser from geophysical vessel presence during the breeding and winter (non-breeding) period, given that the vessel based geophysical activities are planned to be undertaken across three years spanning 2nd June 2025 to 31st July 2028. However, only a proportion of the Kintyre - Islay survey corridor overlaps with the Sound of Gigha SPA and the total number of geophysical and geotechnical and benthic sampling days are limited to 170 days (including 113 days for weather downtime). The time spent within the SPA will be much shorter, and while the geophysical surveys may result in longer vessel presence, the duration of each geotechnical sampling event is not expected to exceed 1 hour before the vessel moves to the next location. Furthermore, while the offshore survey operations will be executed on a 24-hour basis by the larger vessel, the surveys in shallow waters close to shore may be executed only during daylight hours by the smaller vessels, limiting the potential for any disturbance to be caused by the short-lived presence of the survey vessel and its lighting. As the geotechnical survey activities in the vicinity of the SPA are transient and short-lived, no LSE on the Sound of Gigha SPA as a result of the geotechnical and benthic sampling is anticipated.

There is however potential for disturbance to these species as a result of vessel presence during the longer duration vessel based geophysical survey activities, including disturbance from increased vessel light which may disorient fledgling birds. Given the short-term and transient nature of the vessel based geophysical survey activities which will

be highly localised, no significant disturbance effect is anticipated. Nevertheless, mitigation measures have been proposed to reduce disturbance to seabirds (Section 5.5), including that the vessel based geophysical survey vessel will be moving at slow speeds (i.e. ≤6 knots) and measures will be implemented to minimise the potential impacts of light disturbance, e.g. lighting on-board will be kept to the minimum level required; lights will be shielded to prevent upward illumination; and blackout blinds and/or curtains will be used where possible (see Section 5.5.4). Overall, given the short-term and transient nature of the vessel based geophysical survey activities, with the mitigation measures outlined in Section 5.5, there will be no adverse effect on the site integrity of the Sound of Gigha SPA.

The cable survey corridors also overlaps with the Oa SPA (Kintyre – Islay), designated for red-billed chough, and the Cnuic agus Cladach Mhuile SPA (Mainland – Kerrera – Mull), designated for golden eagle. There is considered to be no potential for connectivity between the survey activities and the qualifying features of the sites given that red-billed chough and golden eagle are terrestrial species. Thus, it is concluded that there is no potential for LSE on the Oa SPA or the Cnuic agus Cladach Mhuile SPA.

4.2.6 Conclusion

In conclusion, the vessel based geophysical survey, vessel based geotechnical / benthic survey and shore based intertidal survey activities are not considered capable of affecting (other than insignificantly) the conservation objectives of the Sea of Hebrides NCMPA or the Loch Sunart to the Sound of Jura NCMPA. Furthermore, it is concluded that there will be no adverse effect on site integrity for the South East Islay Skerries SAC, Eileanan agus Sgeiran Lios mor SAC, Inner Hebrides and the Minches SAC and the Mull Oakwoods SAC as a result of the vessel based geophysical survey, vessel based geotechnical / benthic survey and shore based intertidal survey activities, and the geophysical surveys will not cause adverse effect on site integrity of the Sound of Gigha SPA. Finally, there is no potential for LSE on the Oa SPA or the Cnuic agus Cladach Mhuile SPA given the terrestrial nature of the protected features, nor on the Sound of Gigha SPA as a result of the geotechnical surveys due to short term vessel presence.

Thus, there will be no material changes to the conclusions of the protected sites assessment as presented within the Argyll EPS Risk Assessment.

4.3 Cumulative and In-Combination Impacts as a Result of Geophysical Activities

A search has been conducted on the Marine Directorate EPS licence register (Marine Directorate, 2025) to identify licensed activities in the Argyll Marine Region which will have temporal overlap (i.e. occurring at the same time as the geophysical survey activities between May 2025 to July 2028) (Table 4-2).

Table 4-2 List of Licensed Activities within the Argyll Marine Region Which Could Impact EPS In-Combination with the Proposed Survey Activities

EPS LICENCE NUMBER OR REFERENCE	NAME	LICENCE TO INJURE OR DISTURB	PERIOD LICENCE VALID FROM / TO	NUMBER OF EPS PREDICTED TO BE INJURED / DISTURBED
MS-00010789/MS-00010899[3]	European Protected Species Licence - Geophysical and Geotechnical Survey - Hunterston to Kilroot - 00010789	Disturb	3rd March 2025 to 2nd March 2026	8 harbour porpoise; <1 bottlenose dolphin, short-beaked dolphin, Risso's dolphin and minke whale.
EPS-00010616[4]	European Protected Species Licence - Planned Cable Replacement - Jura to Islay - 00010616	Disturb	6th June 2024 to 5th June 2026	Species affected include harbour porpoise, bottlenose dolphin, white-beaked dolphin, Risso's dolphin, killer whale and minke whale. It is estimated that the total number of individuals disturbed will be minimal due to the transient nature of the animals and the brief nature of the works.

Cumulative/in-combination impacts have the potential to reach levels that could impact negatively on cetacean species, with consequences for maintaining those species at Favourable Conservation Status (FCS). The conservation status is considered 'favourable' when:

- Population dynamics data on the species concerned indicates that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future; and
- There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

Based on available data, it is considered that the population of each cetacean MU is being maintained on a long-term basis as a viable component of its natural habitat (IAMMWG, 2022). No activities within the in-combination list (i.e. activities with EPS licences) are predicted to have the potential to reduce the natural range of the species for the foreseeable future, given the short-term duration of the licensable activities in consideration with the limited predicted disturbance. Each relevant cetacean MU comprises sufficiently large area of habitat for populations to be maintained at FCS on a long-term basis. Furthermore, no cumulative or in-combination impacts are anticipated on the West Scotland Seal Management Unit for which the cable survey corridors are located, given that the Hunterston to Kilroot

[3] *Available online at: https://marine.gov.scot/node/25633.*
[4] *Available online at: https://marine.gov.scot/ml/european-protected-species-licence-planned-cable-replacement-jura-islay-00010616.*

survey activities are outwith this management unit. In conclusion, there will be no cumulative or in-combination risk to the MU populations of harbour porpoise, bottlenose dolphin, short-beaked dolphin, white-beaked dolphin, Risso's dolphin, killer whale and minke whale. No cumulative impacts on basking sharks are likely with the mitigation in place.

Furthermore, with the mitigation in place, no in-combination effects with other plans or projects are anticipated for the Inner Hebrides and the Minches SAC as a result of the geophysical survey activities.

5 SPECIES PROTECTION MEASURES

5.1 Overview

This Protected Species Mitigation Plan (PSMP) summarises the mitigation measures which shall be implemented during geophysical survey operations to avoid or reduce the potential risks of injury and disturbance of protected species that may be present in the vicinity of the survey operations. The PSMP was developed in consultation with NatureScot during the determination of the original Argyll Regional EPS licence application, and is as included the Regional EPS and Protected Sites and Species Risk Assessments – Protected Species Mitigation Plan (Xodus Document No. A-303128-S04-A-REPT-005). The mitigation measures M1 to M11 detailed below for marine mammals, basking sharks and otter are applicable only for use of Sub Bottom Profilers (SBP) and echosounders with a peak sound pressure level ≥200 dB re 1µPA @ 1 metre, and operating frequencies <200 kHz (referred to as 'Lower Frequency Echosounders' (LFE) hereafter).

Although species and task specific mitigation is provided below, the following measures will be implemented during all survey works:

- All vessels will adhere to the provisions of the Scottish Marine Wildlife Watching Code (SNH, 2017), and the Basking Shark Code of Conduct (The Shark Trust, undated);
- All survey operations will be conducted at vessel speeds of ≤6 knots;
- If the SBP or LFE is deployed on an uncrewed surface vessel or other autonomous vehicle, the mitigation measures outlined below will be conducted from a support vessel or suitable vantage point on land; and
- Survey personnel will be made aware of all protected species within the marine environment, and their responsibility to implement the mitigation in this document.

5.2 Marine Mammals

The PSMP is implemented through the adherence to the mitigations set out below. Compliance with these mitigations will reduce risk of injury and disturbance to marine mammals resulting from SBP or LFE operations. These mitigations are aligned with the JNCC guidelines for minimising the risk of injury to marine mammals from geophysical surveys (JNCC, 2017). It is noted that most SBP are not capable of performing a soft-start, and hence this procedure is not included. If LFEs have a soft start facility this will be utilised during the commencement of operations. The key components of the PSMP for SBP and LFE include:

- Deployment of a Marine Mammal Observer (MMO) to monitor for the presence of cetaceans and seals within the mitigation zone (see below), prior to the commencement or restart of SBP or LFE operations;
- For SBP or LFE survey commencement and restarts during hours of darkness and/or in periods of poor visibility and/or during periods when the sea state is greater than Beaufort 3, deployment of Passive Acoustic Monitoring (PAM) system to detect for the presence of vocalising cetaceans that cannot be observed by the MMO;
- 500 m mitigation zone for cetaceans;

- 500 m mitigation zone for seals, reducing to 200 m in the event of a need to avoid critical delay to the project; and
- Reporting procedure.

5.2.1 Marine Mammal Observers

There will be sufficient MMO resource mobilised to ensure availability to conduct the required prestart watches for all potential commencements and restarts of the SBP and LFE equipment, for the duration of the survey campaign. MMO(s) will be adequately trained and experienced MMO(s), and will work standard 12-hour shifts. They will have experience of working at sea and will have successfully deployed and used PAM equipment previously. They will be equipped with binoculars offering at least 8x magnification. The MMO will be located at a high point on the vessel, providing good all-round visibility.

5.2.2 M2 – Marine Mammal Monitoring

During daylight hours the MMO(s) will carry out visual observations to monitor for the presence of cetaceans and seals before the SBP or LFE is activated and will advise of the need for delays in the commencement of the operation, should any marine mammals be detected within the 500 m mitigation zone for cetaceans. This distance will be 500 m for seals, except in the event of a need to avoid critical delay to the project in which case the mitigation zone for seals will be 200 m. The criteria as to what constitutes a critical delay leading to reduction in mitigation zone distance from 500 m to 200 m would be agreed on a case-by-case basis in consultation with MD-LOT.

5.2.3 M3 – Passive Acoustic Monitoring (PAM)

When visibility is poor (i.e. due to fog or during hours of darkness) and/or during periods when the sea state is greater than Beaufort 3, the PAM system will be operated by a single MMO/PAM operator to conduct the pre-start search before the SBP or LFE is activated. The PAM system shall comprise of at least 3 hydrophone elements, allowing for directional localisation of detections, together with software allowing real time detection of marine mammal vocalisations (e.g. PAMGuard or equivalent).

5.2.4 M4 – Pre-Start Search

Cetaceans: Visual (MMO) (and acoustic (PAM) monitoring if required) will be conducted for a pre-start search of 30 minutes i.e., prior to the commencement of SBP or LFE operations. This will involve a visual (during daylight hours) or PAM watch (during poor visibility or at night) to determine if any cetaceans are within 500 m of the activities.

Seals: Visual (MMO) will be conducted for a pre-start search of 30 minutes i.e., prior to the commencement of SBP or LFE operations during daylight hours only. This will involve a visual watch to determine if any seals are within 500 m of the activities (or 200 m for seals in the event of the critical delay described in mitigation measure M2).

5.2.5 M5 – Designated Seal Haul-Outs and SACs

General

During hours of darkness and in poor visibility when the MMO cannot monitor for the visibility of seals, the equipment must not be started within 200 m of any SAC designated for seals or designated seal haul-out site. The SBP or LFE must be started outwith this distance, and the vessel then moved into position once the SBP or LFE is sounding.

Where cable corridors are located in or within 500 m of a designated seal haul-out, breeding site, or SAC designated for seals, SHEPD will ensure that, unless required for works relating to a cable fault, nearshore vessel-based surveys within 200 m of land are scheduled to take place outwith the breeding or moulting seasons for the relevant seal species. Specifically, the periods that will be avoided are:

- Grey seal sites: September – December (inclusive) for the breeding season and moult; and
- Harbour seal sites: 15th June – August (inclusive) for the breeding season and moult.

If the MMO confirms that no seals are hauled out onshore inside a designated haul-out, breeding site, or SAC such that they would be within 200 m of the vessel; the above seasonal restrictions shall not apply to nearshore survey operations, and the surveys will be permitted to continue.

Where Uncrewed Aerial Vehicles (UAVs) are used in the vicinity of seal haul-out sites during breeding or moulting periods they will be flown at a minimum altitude of 30 m while over the haul-out, in order to avoid disturbance.

Shore Based Intertidal Surveys in the South East Islay Skerries SAC

Shore based intertidal survey operations within 500 m of the South East Islay Skerries SAC will be scheduled to take place outwith the peak harbour seal breeding season (mid-June – July, inclusive), where possible.

Subject to further consultation and agreement with NatureScot , where shore based surveys within 500m of the SAC during the harbour seal breeding period cannot be avoided, a search of the intertidal survey area for seals will be undertaken prior to commencement of shore based intertidal survey activities. The shore based surveys will only be permitted to commence if seals are not found hauled out on the beach or in the water close to the intertidal survey area. The Scottish Marine Wildlife Watching Code (SMWWC) will also be followed, alongside the other relevant mitigation measures listed in Section 5.2.

5.2.6 M6 – Marine Mammal Mitigation Zone

The mitigation zone is defined as the area within 500 m of the SBP or LFE; noting that if the SBP or LFE is deployed on a Remotely Operated Vehicle/Remotely Operated Towed Vehicle or other remote vehicle, this will be the centre of the mitigation zone, and not the observation vessel. Should any cetaceans or seals be detected within the mitigation zone prior to the commencement of SBP or LFE operations (or after breaks in SBP or LFE survey activity of more than 10 minutes), operations will be delayed until their passage, or the transit of the vessel, results in the cetaceans or seals being outwith the mitigation zone. In both cases, there will be a 20-minute delay from the time of the last sighting within the mitigation zone to the commencement/recommencement of the SBP or LFE operations.

As outlined in mitigation measure M2, the mitigation zone for seals may be reduced from 500 m to 200 m in the event of a need to avoid critical delay to the project, subject to agreement with MD-LOT.

5.2.7 M7 – Reporting

All recordings of cetaceans and seals will be made using JNCC Standard Forms. At the end of the operations, a monitoring report detailing the species recorded, methods used to detect them, and details of any problems encountered will be submitted to Marine Scotland and NatureScot. The report will also include any notable observations with respect to the mitigation measures. This requirement will be communicated to the MMOs at project start up meetings and at crew change.

5.3 Basking Shark

The following mitigation measures will be implemented during SBP or LFE operations in order to reduce disturbance to basking sharks.

5.3.1 M8 – Basking Shark Monitoring

As detailed in Section 5.2, MMOs will conduct pre-start watches for marine mammals prior to the commencement or restart of the SBP and LFE activities. The MMOs will also monitor for the presence of basking shark following the mitigation measures described above for Marine Mammal Monitoring (see Section 5.2.2). Should any basking sharks be detected within 500 m of the vessel prior to the commencement of SBP or LFE surveys (or after breaks in activity of more than 10 minutes), operations will be delayed until their passage, or the transit of the vessel, results in the animals being outwith the mitigation zone. In both cases, there will be a 20 minute delay from the time of the last sighting within the mitigation zone to the commencement/recommencement of the operations.

PAM is not capable of detecting basking sharks, therefore during hours of darkness a nominated member of the vessel/survey crew will maintain a visual watch for basking sharks, assisted by the vessel's search lights, prior to commencement of SBP or LFE activities.

Survey operations will be undertaken at speeds under 6 knots, reducing the risk of injury or disturbance.

5.3.2 M9 – Basking Shark Mitigation Zone

Prior to commencement of the SBP or LFE surveys, the MMO will monitor for the presence of basking sharks, in addition to marine mammals and otters, and will delay start of the survey if any are seen within 500 m of the survey vessel. Unless the survey is within a Marine Protected Area designated for basking sharks, the mitigation zone may be reduced from 500 m to 100 m in the event of a need to avoid critical delay to the project, subject to agreement with MD-LOT.

5.4 Otters

The following mitigation measures will be implemented in order to reduce disturbance to otters.

5.4.1 M10 – Otter Monitoring

There will be MMO availability for the duration of the vessel based SBP or LFE survey operations, with adequately trained and experienced MMO(s) working standard 12 hour shifts. The MMO will also monitor for the presence of otters during pre-start watches prior to the commencement or restart of SBP or LFE activities (see Section 5.2.2).

5.4.2 M11 – Otter Mitigation Zone

When conducting vessel based SBP or LFE surveys in water depths ≤10m and within 500 m of any SAC designated for otters, the MMO will monitor for the presence of otters in the water prior to the commencement or restart of SBP and LFE activities, and will delay the start of the survey if any are seen within 200 m of the survey equipment.

If working during the hours of darkness or in poor visibility when the MMO is not able to monitor otters, the SBP or LFE will not be started within 200 m of a SAC designated for otters. Instead, the SBP or LFE will be started outwith this distance, and the vessel then moved into position once the SBP or LFE is sounding.

5.4.3 M12 – Otter Mitigation for Shore Based Survey Operations

For shore based intertidal surveys of cable landfall sites where the survey corridor is located inside or within 500 m of SACs designated for otters, either of the following measures shall be adopted:

- Otter surveys will be conducted by an appropriately qualified ecologist prior to the commencement of the cable survey operation, and will include the cable landfall survey area and a 200 m mitigation zone; or
- An appropriately qualified ecologist will be appointed to work with the survey personnel and ensure sensitive otter sites are not disturbed.

The pre-works otter survey or ecologist working with the cable survey personnel will ensure the following:

- Any otter holts, layups and couches will be identified and avoided by a 40 m buffer during shore based cable survey operations.

5.5 Seabirds

The following mitigation measures will be implemented in order to reduce disturbance to seabirds.

5.5.1 M13 – Rafting Seabirds

The survey vessels will be moving at a maximum speed of 6 knots during survey operations, which will allow any rafting seabirds time to disperse before the vessel arrives. When not on survey effort, vessels will avoid bird rafts where operationally possible, and it is safe to do so.

5.5.2 M14 – Wintering Birds

When within a SPA which has been designated for wintering birds that may roost or feed in close proximity to the survey corridor or the landfall, further consultation will be undertaken with NatureScot on the requirement for any seasonal restriction to be implemented for cable inspections or survey activities, including UAV operations, in order to avoid disturbance to qualifying species during the most sensitive time of the year.

5.5.3 M15 – Breeding Birds

When within a SPA which has been designated for breeding birds that may nest or feed in close proximity to the cable survey corridor or the landfall, further consultation will be undertaken with NatureScot on the requirement for any seasonal restriction to be implemented for equipment calibration and testing, as well as geophysical survey activities, and UAV operations, in order to avoid disturbance to qualifying species during the most sensitive time of the year.

5.5.4 M16 – Light Disturbance

When within an SPA and where there is potential for 24-hour working, the following measures will be implemented to minimise the potential impacts to birds:

- Lighting on-board the cable survey vessel(s) will be kept to the minimum level required to ensure safe operations;
- Lights will be directed or shielded to prevent upward illumination and minimise disturbance; and
- Blackout blinds and/or curtains will be used where possible when working in marine SPAs.

6 CONCLUSION

This Argyll EPS Risk Assessment Addendum has assessed the potential risk to EPS, basking sharks and other protected species and protected sites as a result of the vessel based geophysical, vessel based geotechnical / benthic and shore based intertidal survey activities within the Kintyre – Islay and Mainland – Kerrera – Mull cable survey corridors. The EPS and other protected species risk assessment has been presented in Section 3, and the protected sites assessment in Section 4. Within these Sections, a description and assessment of any material changes to the content of the Argyll EPS Risk Assessment has been provided in support of the request to vary the existing EPS and basking shark licences.

The EPS and other protected species risk assessment has concluded that there will be no significant impacts on EPS (i.e. cetaceans and otters) or other protected species (i.e. basking sharks, seals, birds) as a result of the vessel based geophysical, vessel based geotechnical / benthic and shore based intertidal survey activities within the cable survey corridors. Thus, there will be no material changes to the conclusions of the EPS and other protected species risk assessment as presented within the Argyll EPS Risk Assessment. Nevertheless, there is potential for limited (i.e. temporary and highly localised) disturbance to cetaceans and basking shark and thus SHEPD will submit a request to vary the existing EPS licence (EPS/BS-00010461) and basking shark derogation licence (EPS/BS-00010462) (see Xodus Doc No. A-100109-S00-A-NOTE-001). It should be noted that the licensable purpose and consideration of alternatives will not change.

Furthermore, the protected sites assessment has concluded the vessel based geophysical, vessel based geotechnical / benthic and shore based intertidal survey activities are not considered capable of affecting (other than insignificantly) the conservation objectives of the Loch Sunart to the Sound of Jura NCMPA or the Sea of Hebrides NCMPA and there will be no adverse effect on site integrity for the South-East Islay Skerries SAC, Eileanan agus Sgeiran Lios mor SAC, Inner Hebrides and the Minches SAC, Mull Oakwoods SAC and the Sound of Gigha SPA. Finally, there will be no potential for LSE on the Oa SPA or the Cnuic agus Cladach Mhuile SPA as a result of the activities, nor will there be LSE on the Sound of Gigha SPA as a result of short-lived geotechnical surveys.

As the vessel based geotechnical / benthic survey activities will not result in LSE on any SACs or SPAs and the vessel based geotechnical / benthic survey activities are not capable of affecting (other than insignificantly) on any NCMPA, the vessel based geotechnical / benthic survey sampling is considered exempted from the requirement of a Marine Licence.

Additionally, the landfall topographic surveys, benthic and geotechnical landfall investigations (using hand augers and hand dug trial pits) will not involve the use of any shore-based equipment, vessels or vehicles and therefore do not require a Marine Licence or Marine Licence Exemption.

Overall, the vessel based geophysical, vessel based geotechnical / benthic and shore based intertidal survey activities for the cable survey corridors constitute a work of overriding public need, while presenting a trivial and temporary risk of disturbance in a limited area.

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APPENDIX A CABLE SURVEY CORRIDOR COORDINATES

Table A-1 Cable Survey Corridor Coordinates (WGS84) in Degrees, Minutes and Seconds (DMS), Degrees and Decimal Minutes (DDM) and Decimal Degrees (DD)

CABLE SURVEY CORRIDOR	LATITUDE_DMS	LONGITUDE_DMS	LATITUDE_DDM	LONGITUDE_DDM	LATITUDE_DD	LONGITUDE_DD
For the avoidance of doubt, the landward boundaries of the survey corridors covered by this Addendum are the MHWS. The landfall boundaries defined by the coordinates within this document should be considered approximations, due to the requirement to limit the number of vertices.						
NEW CABLE SURVEY CORRIDORS						
	55° 36' 47" N	5° 45' 5" W	55° 36.788' N	5° 45.092' W	55.613141	-5.751534
	55° 38' 54" N	5° 40' 22" W	55° 38.907' N	5° 40.382' W	55.648465	-5.673045
	55° 37' 05" N	5° 40' 44" W	55° 37.084' N	5° 40.735' W	55.61808	-5.678927
	55° 35' 15" N	5° 41' 33" W	55° 35.254' N	5° 41.559' W	55.58758	-5.692663
	55° 34' 39" N	5° 42' 55" W	55° 34.651' N	5° 42.917' W	55.577527	-5.715284
	55° 31' 43" N	5° 42' 22" W	55° 31.728' N	5° 42.368' W	55.528804	-5.706141
	55° 25' 33" N	5° 43' 34" W	55° 25.559' N	5° 43.577' W	55.425992	-5.726295
	55° 30' 24" N	6° 14' 7" W	55° 30.403' N	6° 14.125' W	55.506723	-6.235433
Kintyre – Islay	55° 34' 54" N	6° 17' 32" W	55° 34.916' N	6° 17.535' W	55.581943	-6.292253
	55° 34' 50" N	6° 16' 3" W	55° 34.846' N	6° 16.056' W	55.580774	-6.267615
	55° 35' 24" N	6° 15' 34" W	55° 35.405' N	6° 15.578' W	55.590097	-6.25965
	55° 35' 42" N	6° 14' 20" W	55° 35.713' N	6° 14.344' W	55.595224	-6.239068
	55° 36' 12" N	6° 14' 14" W	55° 36.210' N	6° 14.242' W	55.603514	-6.237376
	55° 37' 11" N	6° 12' 50" W	55° 37.185' N	6° 12.846' W	55.61975	-6.214109
	55° 37' 42" N	6° 13' 22" W	55° 37.711' N	6° 13.374' W	55.628523	-6.222914
	55° 37' 59" N	6° 11' 58" W	55° 37.993' N	6° 11.980' W	55.633231	-6.199673
	55° 37' 44" N	6° 11' 04" W	55° 37.749' N	6° 11.078' W	55.629157	-6.184638

CABLE SURVEY CORRIDOR	LATITUDE_DMS	LONGITUDE_DMS	LATITUDE_DDM	LONGITUDE_DDM	LATITUDE_DD	LONGITUDE_DD
	55° 37' 24" N	6° 11' 10" W	55° 37.405' N	6° 11.167' W	55.623423	-6.186127
	55° 37' 50" N	6° 09' 55" W	55° 37.847' N	6° 9.929' W	55.630795	-6.165487
	55° 37' 45" N	6° 09' 03" W	55° 37.756' N	6° 9.060' W	55.629271	-6.151016
	55° 36' 53" N	6° 09' 18" W	55° 36.893' N	6° 9.304' W	55.614888	-6.155082
	55° 36' 06" N	6° 09' 04" W	55° 36.114' N	6° 9.082' W	55.601915	-6.151376
	55° 37' 06" N	6° 07' 46" W	55° 37.106' N	6° 7.767' W	55.618449	-6.129464
	55° 37' 34" N	6° 07' 40" W	55° 37.576' N	6° 7.677' W	55.626276	-6.127965
	55° 37' 37" N	6° 08' 28" W	55° 37.623' N	6° 8.480' W	55.627066	-6.141345
	55° 37' 37" N	6° 08' 28" W	55° 37.624' N	6° 8.478' W	55.627072	-6.141311
	55° 38' 01" N	6° 07' 50" W	55° 38.0327' N	6° 7.848' W	55.63388	-6.130807
	55° 38' 40" N	6° 05' 39" W	55° 38.666' N	6° 5.663' W	55.644449	-6.094389
	55° 38' 23" N	6° 05' 46" W	55° 38.393' N	6° 5.774' W	55.639885	-6.096248
	55° 37' 49" N	6° 06' 52" W	55° 37.832' N	6° 6.870' W	55.630545	-6.114508
	55° 37' 32" N	6° 04' 56" W	55° 37.549' N	6° 4.949' W	55.625832	-6.082486
	55° 39' 06" N	6° 04' 13" W	55° 39.108' N	6° 4.230' W	55.651804	-6.070509
	55° 39' 30" N	6° 04' 40" W	55° 39.506' N	6° 4.673' W	55.65844	-6.077886
	55° 39' 49" N	6° 04' 21" W	55° 39.821' N	6° 4.353' W	55.663699	-6.072557
	55° 39' 24" N	6° 03' 48" W	55° 39.408' N	6° 3.804' W	55.656812	-6.063409
	55° 38' 55" N	6° 02' 53" W	55° 38.931' N	6° 2.895' W	55.648857	-6.048257
	55° 40' 22" N	6° 00' 26" W	55° 40.381' N	6° 0.439' W	55.673018	-6.007321
	55° 40' 18" N	6° 00' 07" W	55° 40.306' N	6° 0.119' W	55.671777	-6.001985
	55° 40' 14" N	5° 59' 51" W	55° 40.246' N	5° 59.859' W	55.67077	-5.997661
	55° 36' 47" N	5° 45' 05" W	55° 36.788' N	5° 45.092' W	55.613141	-5.751534

CABLE SURVEY CORRIDOR	LATITUDE_DMS	LONGITUDE_DMS	LATITUDE_DDM	LONGITUDE_DDM	LATITUDE_DD	LONGITUDE_DD
Mainland – Kerrera – Mull	56° 24' 41" N	5° 39' 17" W	56° 24.698' N	5° 39.291' W	56.411635	-5.654857
	56° 24' 30" N	5° 39' 04" W	56° 24.502' N	5° 39.075' W	56.408377	-5.651258
	56° 23' 22" N	5° 37' 49" W	56° 23.369' N	5° 37.825' W	56.389497	-5.630419
	56° 23' 04" N	5° 36' 45" W	56° 23.082' N	5° 36.755' W	56.384709	-5.612597
	56° 23' 24" N	5° 34' 58" W	56° 23.416' N	5° 34.980' W	56.390272	-5.58301
	56° 23' 03" N	5° 35' 05" W	56° 23.064' N	5° 35.0951' W	56.384402	-5.584919
	56° 22' 50" N	5° 35' 12" W	56° 22.837' N	5° 35.212' W	56.380629	-5.586878
	56° 22' 51" N	5° 34' 40" W	56° 22.861' N	5° 34.674' W	56.381028	-5.577915
	56° 22' 42" N	5° 34' 51" W	56° 22.701' N	5° 34.862' W	56.378352	-5.581049
	56° 22' 41" N	5° 34' 30" W	56° 22.694' N	5° 34.501' W	56.378233	-5.575019
	56° 22' 54" N	5° 33' 54" W	56° 22.915' N	5° 33.914' W	56.381926	-5.56524
	56° 22' 45" N	5° 33' 17" W	56° 22.757' N	5° 33.290' W	56.37929	-5.554835
	56° 22' 37" N	5° 33' 14" W	56° 22.625' N	5° 33.248' W	56.3771	-5.554139
	56° 22' 18" N	5° 33' 30" W	56° 22.307' N	5° 33.511' W	56.371788	-5.558531
	56° 22' 23" N	5° 33' 04" W	56° 22.386' N	5° 33.074' W	56.373102	-5.551242
	56° 22' 56" N	5° 32' 26" W	56° 22.945' N	5° 32.441' W	56.382423	-5.540699
	56° 22' 56" N	5° 32' 00" W	56° 22.935' N	5° 32.012' W	56.382264	-5.533548
	56° 23' 08" N	5° 31' 22" W	56° 23.136' N	5° 31.378' W	56.385607	-5.522975
	56° 23' 08" N	5° 31' 22" W	56° 23.136' N	5° 31.378' W	56.385607	-5.522974
	56° 23' 08" N	5° 31' 22" W	56° 23.134' N	5° 31.378' W	56.385582	-5.522975
	56° 22' 40" N	5° 31' 22" W	56° 22.676' N	5° 31.380' W	56.37794	-5.523
	56° 22' 13" N	5° 31' 04" W	56° 22.224' N	5° 31.713' W	56.370408	-5.528557
	56° 21' 43" N	5° 32' 12" W	56° 21.720' N	5° 32.210' W	56.362012	-5.536837

CABLE SURVEY CORRIDOR	LATITUDE_DMS	LONGITUDE_DMS	LATITUDE_DDM	LONGITUDE_DDM	LATITUDE_DD	LONGITUDE_DD
	56° 21' 15" N	5° 32' 02" W	56° 21.260' N	5° 32.033' W	56.354339	-5.533893
	56° 20' 49" N	5° 33' 36" W	56° 20.817' N	5° 33.603' W	56.346952	-5.560053
	56° 21' 12" N	5° 43' 40" W	56° 21.210' N	5° 43.674' W	56.353501	-5.727909
	56° 21' 48" N	5° 42' 15" W	56° 21.808' N	5° 42.260' W	56.363472	-5.704345
	56° 22' 18" N	5° 41' 43" W	56° 22.311' N	5° 41.724' W	56.371866	-5.695409
	56° 22' 39" N	5° 41' 25" W	56° 22.659' N	5° 41.428' W	56.377657	-5.690476
	56° 23' 02" N	5° 41' 52" W	56° 23.037' N	5° 41.879' W	56.383951	-5.697988
	56° 23' 15" N	5° 41' 39" W	56° 23.266' N	5° 41.665' W	56.387771	-5.694427
	56° 23' 13" N	5° 40' 29" W	56° 23.226' N	5° 40.491' W	56.387107	-5.674861
	56° 23' 30" N	5° 39' 58" W	56° 23.515' N	5° 39.982' W	56.391933	-5.666369
	56° 23' 59" N	5° 40' 00" W	56° 23.995' N	5° 40.012' W	56.399918	-5.666881
	56° 24' 41" N	5° 39' 17" W	56° 24.698' N	5° 39.291' W	56.411635	-5.654857
EXISTING LICENSED CABLE SURVEY CORRIDORS (ORIGINAL COORIDNATES AS PROVIDED IN 2023)						
Bridgend, Islay	55° 47' 5.789256" N	6° 17' 43.605175" W	55° 47.096' N	6° 17.727' W	55.78494146	-6.295445882
	55° 46' 51.854261" N	6° 16' 45.70401" W	55° 46.864' N	6° 16.762' W	55.78107063	-6.279362225
	55° 46' 59.459243" N	6° 16' 20.47714" W	55° 46.991' N	6° 16.341' W	55.78318312	-6.272354761
	55° 46' 59.693549" N	6° 15' 56.137558" W	55° 46.995' N	6° 15.936' W	55.78324821	-6.265593766
	55° 46' 54.056816" N	6° 15' 36.886867" W	55° 46.901' N	6° 15.615' W	55.78168245	-6.260246352
	55° 46' 34.546001" N	6° 15' 8.876347" W	55° 46.576' N	6° 15.148' W	55.77626278	-6.252465652
	55° 46' 17.084298" N	6° 15' 9.887641" W	55° 46.285' N	6° 15.165' W	55.77141231	-6.252746567
	55° 46' 14.050409" N	6° 15' 31.933883" W	55° 46.234' N	6° 15.532' W	55.77056956	-6.258870523
	55° 45' 49.85213" N	6° 15' 42.774973" W	55° 45.831' N	6° 15.713' W	55.76384781	-6.261881937
	55° 45' 42.43806" N	6° 16' 17.783004" W	55° 45.707' N	6° 16.296' W	55.76178835	-6.27160639

CABLE SURVEY CORRIDOR	LATITUDE_DMS	LONGITUDE_DMS	LATITUDE_DDM	LONGITUDE_DDM	LATITUDE_DD	LONGITUDE_DD
	55° 45' 36.722174" N	6° 16' 51.633556" W	55° 45.612' N	6° 16.861' W	55.7602006	-6.281009321
	55° 45' 27.269752" N	6° 17' 10.489704" W	55° 45.455' N	6° 17.175' W	55.75757493	-6.28624714
Coll – Tiree	56° 32' 49.873272" N	6° 44' 51.028732" W	56° 32.831' N	6° 44.850' W	56.54718702	-6.747507981
	56° 33' 42.282792" N	6° 42' 55.012612" W	56° 33.705' N	6° 42.917' W	56.56174522	-6.715281281
	56° 34' 33.638952" N	6° 42' 6.748261" W	56° 34.561' N	6° 42.112' W	56.57601082	-6.701874517
	56° 33' 50.118048" N	6° 41' 21.324422" W	56° 33.835' N	6° 41.355' W	56.56392168	-6.689256784
	56° 34' 55.501752" N	6° 40' 45.962339" W	56° 34.925' N	6° 40.766' W	56.58208382	-6.679433983
	56° 35' 8.43576" N	6° 39' 41.183672" W	56° 35.141' N	6° 39.686' W	56.5856766	-6.661439909
	56° 34' 56.286732" N	6° 38' 30.982888" W	56° 34.938' N	6° 38.516' W	56.58230187	-6.641939691
	56° 34' 25.134276" N	6° 38' 39.18786" W	56° 34.419' N	6° 38.653 W	56.57364841	-6.64421885
	56° 32' 46.124412" N	6° 39' 14.733608" W	56° 32.77' N	6° 39.246' W	56.54614567	-6.654092669
	56° 29' 38.306904" N	6° 42' 54.490154" W	56° 29.638' N	6° 42.908' W	56.49397414	-6.715136154
	56° 30' 18.363636" N	6° 48' 4.169412" W	56° 30.306' N	6° 48.069' W	56.50510101	-6.80115817
	56° 30' 52.572636" N	6° 49' 18.777781" W	56° 30.876' N	6° 49.313' W	56.51460351	-6.821882717
	56° 31' 32.988288" N	6° 48' 15.998008" W	56° 31.550' N	6° 48.267' W	56.52583008	-6.804443891
	56° 31' 49.82592" N	6° 46' 16.48758" W	56° 31.830' N	6° 46.275' W	56.5305072	-6.77124655
	56° 31' 29.88066" N	6° 45' 50.281265" W	56° 31.498 N	6° 45.838' W	56.52496685	-6.763967018
	56° 31' 48.837072" N	6° 43' 39.964638" W	56° 31.814' N	6° 43.666' W	56.53023252	-6.727767955
	56° 32' 25.704564" N	6° 43' 46.149092" W	56° 32.428' N	6° 43.769' W	56.54047349	-6.729485859
	56° 32' 28.586688" N	6° 44' 25.093964" W	56° 32.476' N	6° 44.418' W	56.54127408	-6.740303879
Eilean Loain	56° 0' 42.34046" N	5° 36' 11.807741" W	56° 0.706' N	5° 36.197' W	56.01176124	-5.603279928
	56° 0' 54.732596" N	5° 36' 1.898017" W	56° 0.912' N	5° 36.032 W	56.0152035	-5.600527227
	56° 0' 50.906945" N	5° 35' 37.064566" W	56° 0.848' N	5° 35.618' W	56.01414082	-5.593629046

CABLE SURVEY CORRIDOR	LATITUDE_DMS	LONGITUDE_DMS	LATITUDE_DDM	LONGITUDE_DDM	LATITUDE_DD	LONGITUDE_DD
	56° 0' 45.635238" N	5° 35' 22.047313" W	56° 0.761' N	5° 35.367' W	56.01267646	-5.589457587
	56° 0' 36.804838" N	5° 35' 14.577958" W	56° 0.613' N	5° 35.243' W	56.01022357	-5.587382766
	56° 0' 34.680791" N	5° 35' 29.227502" W	56° 0.578' N	5° 35.487' W	56.00963355	-5.591452084
	56° 0' 37.388182" N	5° 35' 37.956818" W	56° 0.623' N	5° 35.633' W	56.01038561	-5.593876894
	56° 0' 21.505003" N	5° 36' 1.652213" W	56° 0.358 N	5° 36.028' W	56.00597361	-5.600458948
	56° 0' 23.804921" N	5° 36' 14.47511" W	56° 0.397' N	5° 36.241' W	56.00661248	-5.604020864
	56° 0' 33.698902" N	5° 35' 59.545046" W	56° 0.562' N	5° 35.992' W	56.00936081	-5.599873624
	56° 0' 40.254772" N	5° 36' 0.686725" W	56° 0.671' N	5° 36.011' W	56.01118188	-5.600190757
Eilean Righ	56° 10' 0.743675" N	5° 31' 42.454758" W	56° 10.012' N	5° 31.708' W	56.16687324	-5.528459655
	56° 10' 7.222692" N	5° 31' 35.587463" W	56° 10.120' N	5° 31.593' W	56.16867297	-5.526552073
	56° 10' 15.55361" N	5° 31' 35.215666" W	56° 10.259' N	5° 31.587' W	56.17098711	-5.526448796
	56° 10' 24.451547" N	5° 31' 10.679578" W	56° 10.408' N	5° 31.178' W	56.17345876	-5.519633216
	56° 10' 13.41538" N	5° 31' 1.855931" W	56° 10.224' N	5° 31.031' W	56.17039316	-5.517182203
	56° 10' 8.504962" N	5° 31' 1.737275" W	56° 10.142' N	5° 31.029' W	56.16902916	-5.517149243
	56° 9' 40.675136" N	5° 31' 25.54396" W	56° 9.678' N	5° 31.426' W	56.16129865	-5.523762211
	56° 9' 34.937654" N	5° 31' 46.835112" W	56° 9.582' N	5° 31.781' W	56.1597049	-5.52967642
	56° 9' 37.966097" N	5° 32' 7.10853" W	56° 9.633' N	5° 32.118' W	56.16054614	-5.535307925
	56° 9' 59.449622" N	5° 31' 38.106376" W	56° 9.991' N	5° 31.635' W	56.16651378	-5.527251771
Islay - Colonsay	55° 54' 33.223622" N	6° 7' 31.490879" W	55° 54.554' N	6° 7.525' W	55.90922878	-6.125414133
	55° 56' 40.220686" N	6° 7' 5.234164" W	55° 56.670' N	6° 7.087' W	55.94450575	-6.118120601
	56° 2' 58.004192" N	6° 9' 10.417626" W	56° 2.967' N	6° 9.174' W	56.04944561	-6.152893785
	56° 3' 10.96992" N	6° 10' 59.759252" W	56° 3.183' N	6° 10.996' W	56.0530472	-6.183266459
	56° 3' 19.981984" N	6° 11' 22.334356" W	56° 3.333' N	6° 11.372' W	56.05555055	-6.189537321

CABLE SURVEY CORRIDOR	LATITUDE_DMS	LONGITUDE_DMS	LATITUDE_DDM	LONGITUDE_DDM	LATITUDE_DD	LONGITUDE_DD
	56° 3' 32.758978" N	6° 11' 27.718001" W	56° 3.546' N	6° 11.462' W	56.05909972	-6.191032778
	56° 3' 38.494508" N	6° 11' 49.46743" W	56° 3.642' N	6° 11.824' W	56.06069292	-6.197074286
	56° 3' 43.535624" N	6° 11' 46.545767" W	56° 3.726' N	6° 11.776' W	56.06209323	-6.196262713
	56° 3' 59.056531" N	6° 10' 53.187067" W	56° 3.984' N	6° 10.886' W	56.06640459	-6.181440852
	56° 4' 2.934836" N	6° 10' 55.325518" W	56° 4.049' N	6° 10.922' W	56.0674819	-6.182034866
	56° 4' 5.251098" N	6° 11' 11.87291" W	56° 4.088' N	6° 11.198' W	56.06812531	-6.186631364
	56° 4' 11.572817" N	6° 11' 12.060308" W	56° 4.193' N	6° 11.201' W	56.06988134	-6.186683419
	56° 4' 18.564866" N	6° 10' 58.028477" W	56° 4.309' N	6° 10.967' W	56.07182357	-6.182785688
	56° 4' 1.762633" N	6° 8' 3.79662" W	56° 4.029' N	6° 8.063' W	56.06715629	-6.13438795
	56° 3' 15.445584" N	6° 7' 18.743405" W	56° 3.257' N	6° 7.312' W	56.05429044	-6.121873168
	55° 56' 41.618476" N	6° 5' 8.649402" W	55° 56.694' N	6° 5.144' W	55.94489402	-6.085735945
	55° 54' 33.956716" N	6° 6' 25.357446" W	55° 54.566' N	6° 6.423' W	55.90943242	-6.107043735
Islay - Orsay	55° 40' 40.075118" N	6° 30' 52.69099" W	55° 40.668' N	6° 30.878' W	55.67779864	-6.514636386
	55° 40' 48.298703" N	6° 30' 44.701114" W	55° 40.805' N	6° 30.745' W	55.68008297	-6.512416976
	55° 40' 49.637482" N	6° 30' 41.743562" W	55° 40.827' N	6° 30.696' W	55.68045486	-6.511595434
	55° 40' 46.462152" N	6° 30' 35.248392" W	55° 40.774' N	6° 30.587' W	55.67957282	-6.50979122
	55° 40' 49.163693" N	6° 30' 26.553074" W	55° 40.819' N	6° 30.443' W	55.68032325	-6.507375854
	55° 40' 48.558893" N	6° 30' 25.145834" W	55° 40.809' N	6° 30.419' W	55.68015525	-6.506984954
	55° 40' 38.290624" N	6° 30' 36.210546" W	55° 40.638' N	6° 30.604' W	55.67730295	-6.510058485
	55° 40' 36.295342" N	6° 30' 26.148791" W	55° 40.605' N	6° 30.436' W	55.67674871	-6.507263553
	55° 40' 28.09178" N	6° 30' 18.315562" W	55° 40.468' N	6° 30.305' W	55.67446994	-6.505087656
	55° 40' 30.786524" N	6° 30' 8.399808" W	55° 40.513' N	6° 30.140' W	55.67521848	-6.50233328
	55° 40' 29.653241" N	6° 29' 58.963204" W	55° 40.494' N	6° 29.982' W	55.67490368	-6.499712001

CABLE SURVEY CORRIDOR	LATITUDE_DMS	LONGITUDE_DMS	LATITUDE_DDM	LONGITUDE_DDM	LATITUDE_DD	LONGITUDE_DD
	55° 40' 15.862696" N	6° 30' 21.602297" W	55° 40.264' N	6° 30.360' W	55.67107297	-6.506000638
	55° 40' 21.492761" N	6° 30' 23.531011" W	55° 40.358' N	6° 30.392' W	55.67263688	-6.506536392
	55° 40' 25.490453" N	6° 30' 34.591504" W	55° 40.425' N	6° 30.577' W	55.67374735	-6.509608751
	55° 40' 32.00763" N	6° 30' 37.788653" W	55° 40.533' N	6° 30.630' W	55.67555768	-6.510496848
	55° 40' 36.089411" N	6° 30' 48.97472" W	55° 40.601' N	6° 30.816' W	55.6766915	-6.513604089
Jura - Islay	55° 48' 53.270262" N	6° 4' 26.467529" W	55° 48.888' N	6° 4.441' W	55.8147973	-6.074018758
	55° 48' 43.027279" N	6° 4' 20.02224" W	55° 48.717' N	6° 4.334' W	55.81195202	-6.0722284
	55° 48' 30.2562" N	6° 4' 0.363166" W	55° 48.504' N	6° 4.006' W	55.8084045	-6.066767546
	55° 48' 16.566203" N	6° 5' 52.55313" W	55° 48.276' N	6° 5.876' W	55.80460172	-6.097931425
	55° 48' 26.32244" N	6° 5' 58.262726" W	55° 48.439' N	6° 5.971' W	55.80731179	-6.099517424
	55° 48' 31.15287" N	6° 5' 55.830206" W	55° 48.519' N	6° 5.931' W	55.80865358	-6.098841724
	55° 48' 43.915932" N	6° 6' 13.182005" W	55° 48.732' N	6° 6.220' W	55.81219887	-6.103661668
	55° 48' 47.188476" N	6° 6' 14.425128" W	55° 48.786' N	6° 6.240' W	55.81310791	-6.10400698
	55° 48' 50.447779" N	6° 6' 12.290616" W	55° 48.841' N	6° 6.205' W	55.81401327	-6.10341406
	55° 48' 53.19032" N	6° 6' 17.056076" W	55° 48.887 N	6° 6.284' W	55.81477509	-6.104737799
	55° 49' 1.17296" N	6° 6' 18.981929" W	55° 49.020' N	6° 6.316' W	55.81699249	-6.105272758
	55° 49' 4.583834" N	6° 6' 14.59305" W	55° 49.076' N	6° 6.243' W	55.81793995	-6.104053625
	55° 49' 9.114974" N	6° 6' 21.251048" W	55° 49.152' N	6° 6.354' W	55.8191986	-6.105903069
	55° 49' 21.254768" N	6° 6' 16.855718" W	55° 49.354' N	6° 6.281' W	55.82257077	-6.104682144
	55° 49' 31.586477" N	6° 4' 53.896202" W	55° 49.526' N	6° 4.898' W	55.82544069	-6.081637834
	55° 49' 24.322562" N	6° 4' 50.205972" W	55° 49.405' N	6° 4.837' W	55.82342293	-6.08061277
	55° 49' 19.729812" N	6° 4' 52.883335" W	55° 49.329' N	6° 4.881' W	55.82214717	-6.081356482
	55° 49' 4.77287" N	6° 4' 42.012973" W	55° 49.080' N	6° 4.700' W	55.81799246	-6.078336937

CABLE SURVEY CORRIDOR	LATITUDE_DMS	LONGITUDE_DMS	LATITUDE_DDM	LONGITUDE_DDM	LATITUDE_DD	LONGITUDE_DD
Kerrera - Mull 2	56° 25' 25.306223" N	5° 39' 5.525305" W	56° 25.422' N	5° 39.092' W	56.42369617	-5.651534807
	56° 26' 38.344171" N	5° 38' 49.163071" W	56° 26.639' N	5° 38.819' W	56.44398449	-5.646989742
	56° 25' 4.12329" N	5° 31' 57.32949" W	56° 25.069' N	5° 31.955' W	56.41781203	-5.532591525
	56° 24' 51.342923" N	5° 31' 48.948769" W	56° 24.856' N	5° 31.816' W	56.41426192	-5.530263547
	56° 24' 41.209801" N	5° 32' 19.003085" W	56° 24.687' N	5° 32.317' W	56.41144717	-5.538611968
	56° 24' 29.870021" N	5° 32' 25.420067" W	56° 24.498' N	5° 32.424' W	56.40829723	-5.540394463
	56° 24' 27.444233" N	5° 32' 34.031288" W	56° 24.457' N	5° 32.567' W	56.4076234	-5.542786469
	56° 24' 31.551952" N	5° 32' 57.90354" W	56° 24.526' N	5° 32.965' W	56.40876443	-5.54941765
	56° 24' 33.414041" N	5° 33' 8.72518" W	56° 24.557' N	5° 33.145' W	56.40928168	-5.552423661
	56° 24' 29.924813" N	5° 33' 34.551112" W	56° 24.499' N	5° 33.576' W	56.40831245	-5.559597531
	56° 24' 24.686132" N	5° 33' 49.80474" W	56° 24.411' N	5° 33.830' W	56.40685726	-5.56383465
	56° 24' 19.404778" N	5° 33' 57.277966" W	56° 24.323' N	5° 33.955' W	56.40539022	-5.565910546
	56° 24' 26.621726" N	5° 34' 57.198706" W	56° 24.444' N	5° 34.953' W	56.40739492	-5.582555196
	56° 25' 7.674766" N	5° 38' 12.588828" W	56° 25.128' N	5° 38.210' W	56.41879855	-5.63683023
Kerrera - Mull Replacement	56° 25' 10.257312" N	5° 39' 25.127568" W	56° 25.171' N	5° 39.419' W	56.41951592	-5.65697988
	56° 26' 3.841818" N	5° 38' 53.620555" W	56° 26.064' N	5° 38.894' W	56.43440051	-5.648227932
	56° 24' 25.931225" N	5° 33' 48.146634" W	56° 24.432' N	5° 33.802' W	56.40720312	-5.563374065
	56° 24' 13.532112" N	5° 34' 2.468165" W	56° 24.226' N	5° 34.041 W	56.40375892	-5.567352268
	56° 24' 5.405537" N	5° 34' 3.284692" W	56° 24.090' N	5° 34.055' W	56.40150154	-5.567579081
	56° 23' 52.290352" N	5° 33' 55.702739" W	56° 23.872 N	5° 33.928' W	56.39785843	-5.565472983
	56° 23' 50.419097" N	5° 34' 8.303358" W	56° 23.840' N	5° 34.138' W	56.39733864	-5.568973155
	56° 23' 54.873244" N	5° 34' 23.990286" W	56° 23.915' N	5° 34.400' W	56.3985759	-5.573330635
	56° 23' 44.41448" N	5° 34' 24.768955" W	56° 23.740' N	5° 34.413' W	56.39567069	-5.573546932

CABLE SURVEY CORRIDOR	LATITUDE_DMS	LONGITUDE_DMS	LATITUDE_DDM	LONGITUDE_DDM	LATITUDE_DD	LONGITUDE_DD
	56° 23' 31.11436" N	5° 34' 25.759168" W	56° 23.519' N	5° 34.429' W	56.39197621	-5.573821991
	56° 23' 4.95191" N	5° 36' 45.347857" W	56° 23.083' N	5° 36.756' W	56.38470886	-5.612596627
	56° 23' 22.189549" N	5° 37' 49.507892" W	56° 23.369' N	5° 37.825' W	56.3894971	-5.630418859
	56° 24' 41.886065" N	5° 39' 17.484041" W	56° 24.698' N	5° 39.291' W	56.41163502	-5.654856678
	56° 24' 58.447663" N	5° 39' 11.98822" W	56° 24.974' N	5° 39.200' W	56.41623546	-5.653330061
Kintyre - Gigha	55° 41' 19.334832" N	5° 39' 27.452959" W	55° 41.322' N	5° 39.458' W	55.68870412	-5.657625822
	55° 40' 55.698132" N	5° 40' 26.784386" W	55° 40.928' N	5° 40.446' W	55.68213837	-5.674106774
	55° 40' 5.421396" N	5° 39' 37.209449" W	55° 40.090' N	5° 39.620' W	55.66817261	-5.660335958
	55° 39' 51.223608" N	5° 39' 58.367066" W	55° 39.854' N	5° 39.973' W	55.66422878	-5.666213074
	55° 39' 33.126948" N	5° 39' 55.74141" W	55° 39.552' N	5° 39.929' W	55.65920193	-5.665483725
	55° 38' 59.736732" N	5° 40' 11.251142" W	55° 38.996' N	5° 40.188 W	55.64992687	-5.669791984
	55° 39' 45.56268" N	5° 43' 58.287929" W	55° 39.759' N	5° 43.971' W	55.6626563	-5.732857758
	55° 39' 56.59722" N	5° 43' 54.912436" W	55° 39.943' N	5° 43.915' W	55.66572145	-5.731920121
	55° 40' 5.857716" N	5° 43' 57.892303" W	55° 40.098' N	5° 43.965' W	55.66829381	-5.732747862
	55° 40' 2.054424" N	5° 44' 18.968114" W	55° 40.03' N	5° 44.316' W	55.66723734	-5.738602254
	55° 40' 17.70006" N	5° 44' 24.190919" W	55° 40.295' N	5° 44.403' W	55.67158335	-5.740053033
	55° 40' 35.140908" N	5° 44' 13.737059" W	55° 40.586' N	5° 44.229' W	55.67642803	-5.737149183
	55° 40' 42.221604" N	5° 44' 10.450529" W	55° 40.704' N	5° 44.174' W	55.67839489	-5.736236258
	55° 40' 54.14754" N	5° 43' 37.787848" W	55° 40.902' N	5° 43.630' W	55.68170765	-5.727163291
	55° 40' 56.677044" N	5° 43' 58.542924" W	55° 40.945' N	5° 43.976' W	55.68241029	-5.73292859
	55° 41' 5.089668" N	5° 44' 7.738091" W	55° 41.085' N	5° 44.129' W	55.68474713	-5.735482803
	55° 41' 35.846772" N	5° 43' 52.486781" W	55° 41.597' N	5° 43.875 W	55.69329077	-5.731246328
Mainland - Jura	56° 2' 51.862985" N	5° 45' 19.654506" W	56° 2.864' N	5° 45.328' W	56.04773972	-5.755459585

CABLE SURVEY CORRIDOR	LATITUDE_DMS	LONGITUDE_DMS	LATITUDE_DDM	LONGITUDE_DDM	LATITUDE_DD	LONGITUDE_DD
	56° 2' 51.561881" N	5° 45' 12.879954" W	56° 2.859' N	5° 45.215' W	56.04765608	-5.753577765
	56° 3' 12.096277" N	5° 44' 53.759645" W	56° 3.202' N	5° 44.896' W	56.05336008	-5.748266568
	56° 2' 47.675227" N	5° 39' 52.931801" W	56° 2.795' N	5° 39.882' W	56.04657645	-5.664703278
	56° 2' 32.004604" N	5° 38' 18.166754" W	56° 2.533' N	5° 38.303' W	56.0422235	-5.638379654
	56° 2' 26.046438" N	5° 38' 13.064896" W	56° 2.434' N	5° 38.218' W	56.04056846	-5.636962471
	56° 2' 0.467984" N	5° 38' 30.412766" W	56° 2.008' N	5° 38.507' W	56.03346333	-5.641781324
	56° 2' 2.792861" N	5° 38' 12.384118" W	56° 2.047' N	5° 38.206' W	56.03410913	-5.636773366
	56° 1' 45.316909" N	5° 38' 8.526692" W	56° 1.755' N	5° 38.142' W	56.0292547	-5.635701859
	56° 1' 39.401436" N	5° 38' 16.202911" W	56° 1.657' N	5° 38.270' W	56.02761151	-5.637834142
	56° 1' 46.367828" N	5° 38' 44.197408" W	56° 1.773' N	5° 38.737' W	56.02954662	-5.645610391
	56° 1' 24.067412" N	5° 39' 22.216234" W	56° 1.401' N	5° 39.370' W	56.02335206	-5.656171176
	56° 1' 38.775972" N	5° 39' 35.07035" W	56° 1.646 N	5° 39.5854 W	56.02743777	-5.659741764
	56° 1' 52.091584" N	5° 41' 43.661296" W	56° 1.868' N	5° 41.728' W	56.03113655	-5.695461471
	56° 1' 59.28947" N	5° 45' 47.9336" W	56° 1.988' N	5° 45.799' W	56.03313596	-5.763314889
	56° 2' 45.894376" N	5° 45' 17.585755" W	56° 2.765' N	5° 45.293' W	56.04608177	-5.754884932
Mainland - Kerrera	56° 23' 34.819202" N	5° 30' 53.748587" W	56° 23.580' N	5° 30.896' W	56.39300533	-5.514930163
	56° 23' 31.668389" N	5° 30' 49.892461" W	56° 23.528' N	5° 30.832' W	56.39213011	-5.513859017
	56° 23' 14.017927" N	5° 31' 20.34683" W	56° 23.234' N	5° 31.339' W	56.3872272	-5.522318564
	56° 23' 21.944508" N	5° 31' 48.717732" W	56° 23.365' N	5° 31.812' W	56.38942903	-5.53019937
	56° 23' 34.404623" N	5° 31' 33.311028" W	56° 23.573' N	5° 31.555' W	56.39289017	-5.52591973
	56° 23' 45.04033" N	5° 31' 36.887203" W	56° 23.751' N	5° 31.615' W	56.39584454	-5.526913112
	56° 23' 51.836852" N	5° 31' 25.987177" W	56° 23.864 N	5° 31.43' W	56.39773246	-5.523885327
	56° 23' 43.249826" N	5° 30' 51.520745" W	56° 23.721' N	5° 30.859' W	56.39534717	-5.514311318

CABLE SURVEY CORRIDOR	LATITUDE_DMS	LONGITUDE_DMS	LATITUDE_DDM	LONGITUDE_DDM	LATITUDE_DD	LONGITUDE_DD
	56° 23' 37.48033" N	5° 30' 56.679682" W	56° 23.625' N	5° 30.945' W	56.39374454	-5.515744356
Mainland - Kerrera 2	56° 23' 37.229028" N	5° 30' 56.661743" W	56° 23.620' N	5° 30.944' W	56.39367473	-5.515739373
	56° 23' 31.668389" N	5° 30' 49.892461" W	56° 23.528' N	5° 30.832' W	56.39213011	-5.513859017
	56° 23' 10.680227" N	5° 31' 25.244569" W	56° 23.178' N	5° 31.421' W	56.38630006	-5.523679047
	56° 23' 8.183641" N	5° 31' 22.708607" W	56° 23.136' N	5° 31.378' W	56.38560657	-5.522974613
	56° 22' 56.145907" N	5° 32' 0.680543" W	56° 22.936' N	5° 32.011' W	56.38226275	-5.533522373
	56° 22' 57.095713" N	5° 32' 24.655898" W	56° 22.952' N	5° 32.411' W	56.38252659	-5.540182194
	56° 23' 11.430348" N	5° 32' 3.974006" W	56° 23.191' N	5° 32.066' W	56.38650843	-5.534437224
	56° 23' 13.112761" N	5° 32' 12.293938" W	56° 23.219' N	5° 32.205' W	56.38697577	-5.536748316
	56° 23' 19.234792" N	5° 32' 12.082024" W	56° 23.321' N	5° 32.201' W	56.38867633	-5.536689451
	56° 23' 19.092091" N	5° 31' 58.475125" W	56° 23.318' N	5° 31.975' W	56.38863669	-5.532909757
	56° 23' 22.743355" N	5° 31' 53.493809" W	56° 23.379' N	5° 31.892' W	56.38965093	-5.531526058
	56° 23' 22.280546" N	5° 31' 47.851" W	56° 23.371' N	5° 31.798' W	56.38952237	-5.529958611
	56° 23' 34.404623" N	5° 31' 33.311028" W	56° 23.573' N	5° 31.555' W	56.39289017	-5.52591973
	56° 23' 40.599384" N	5° 31' 36.898723" W	56° 23.677 N	5° 31.615' W	56.39461094	-5.526916312
	56° 23' 42.842785" N	5° 30' 59.712541" W	56° 23.714' N	5° 30.995' W	56.39523411	-5.516586817
	56° 23' 42.711212" N	5° 30' 51.831994" W	56° 23.712' N	5° 30.864' W	56.39519756	-5.514397776
Mainland - Lismore	56° 33' 32.749204" N	5° 24' 30.779604" W	56° 33.546' N	5° 24.513' W	56.559097	-5.40854989
	56° 33' 29.366698" N	5° 24' 20.712352" W	56° 33.489' N	5° 24.345' W	56.55815742	-5.405753431
	56° 33' 22.815702" N	5° 24' 21.413268" W	56° 33.380' N	5° 24.357' W	56.5563377	-5.40594813
	56° 33' 18.530939" N	5° 24' 28.139861" W	56° 33.309' N	5° 24.469' W	56.55514748	-5.407816628
	56° 33' 20.443932" N	5° 24' 34.613035" W	56° 33.341' N	5° 24.577' W	56.55567887	-5.409614732
	56° 33' 16.170516" N	5° 24' 44.62884" W	56° 33.270' N	5° 24.744' W	56.55449181	-5.4123969

CABLE SURVEY CORRIDOR	LATITUDE_DMS	LONGITUDE_DMS	LATITUDE_DDM	LONGITUDE_DDM	LATITUDE_DD	LONGITUDE_DD
	56° 32' 50.101195" N	5° 25' 16.405684" W	56° 32.835' N	5° 25.273' W	56.54725033	-5.421223801
	56° 32' 54.092252" N	5° 26' 21.385122" W	56° 32.902' N	5° 26.356' W	56.54835896	-5.439273645
	56° 33' 9.060642" N	5° 26' 2.933995" W	56° 33.151' N	5° 26.049' W	56.55251685	-5.434148332
	56° 33' 17.88417" N	5° 26' 0.602542" W	56° 33.298' N	5° 26.010' W	56.55496783	-5.433500706
	56° 33' 36.180644" N	5° 25' 37.502962" W	56° 33.603' N	5° 25.625' W	56.56005018	-5.427084156
	56° 33' 39.45519" N	5° 25' 38.580722" W	56° 33.658' N	5° 25.643' W	56.56095978	-5.427383534
Mull - Calve Island	56° 37' 10.238254" N	6° 2' 39.672582" W	56° 37.171' N	6° 2.661' W	56.61951063	-6.044353495
	56° 37' 6.886351" N	6° 2' 41.681069" W	56° 37.115' N	6° 2.695' W	56.61857954	-6.044911408
	56° 37' 5.34643" N	6° 2' 41.022881" W	56° 37.089' N	6° 2.684' W	56.61815179	-6.044728578
	56° 37' 2.777434" N	6° 2' 41.923788" W	56° 37.046' N	6° 2.699' W	56.61743818	-6.04497883
	56° 36' 51.415999" N	6° 2' 23.354131" W	56° 36.857' N	6° 2.389' W	56.61428222	-6.039820592
	56° 36' 45.73849" N	6° 1' 59.789053" W	56° 36.762' N	6° 1.996' W	56.61270514	-6.033274737
	56° 36' 40.596019" N	6° 1' 59.714522" W	56° 36.677' N	6° 1.995' W	56.61127667	-6.033254034
	56° 36' 38.881861" N	6° 2' 11.340982" W	56° 36.648' N	6° 2.189 W	56.61080052	-6.036483606
	56° 36' 48.141544" N	6° 2' 37.261565" W	56° 36.802' N	6° 2.621' W	56.61337265	-6.043683768
	56° 36' 54.934657" N	6° 2' 45.425533" W	56° 36.916' N	6° 2.757' W	56.61525963	-6.045951537
	56° 36' 55.655392" N	6° 2' 53.033906" W	56° 36.928' N	6° 2.884' W	56.61545983	-6.048064974
	56° 36' 51.672535" N	6° 3' 1.912183" W	56° 36.861' N	6° 3.03' W	56.61435348	-6.050531162
	56° 36' 46.343178" N	6° 2' 58.906507" W	56° 36.772' N	6° 2.982' W	56.61287311	-6.049696252
	56° 36' 42.427033" N	6° 3' 2.668349" W	56° 36.707' N	6° 3.044' W	56.61178529	-6.050741208
	56° 36' 43.182331" N	6° 3' 8.508287" W	56° 36.720' N	6° 3.142' W	56.61199509	-6.052363413
	56° 36' 51.598606" N	6° 3' 12.797842" W	56° 36.860' N	6° 3.213' W	56.61433295	-6.053554956
	56° 36' 59.984734" N	6° 3' 8.545946" W	56° 37.000 N	6° 3.142' W	56.61666243	-6.052373874

CABLE SURVEY CORRIDOR	LATITUDE_DMS	LONGITUDE_DMS	LATITUDE_DDM	LONGITUDE_DDM	LATITUDE_DD	LONGITUDE_DD
	56° 37' 9.108635" N	6° 2' 53.228515" W	56° 37.1518' N	6° 2.887' W	56.61919684	-6.048119032
	56° 37' 11.368423" N	6° 2' 41.871469" W	56° 37.189' N	6° 2.698' W	56.61982456	-6.044964297
Mull - Coll	56° 41' 17.091139" N	6° 27' 4.883792" W	56° 41.285' N	6° 27.081' W	56.68808087	-6.451356609
	56° 39' 56.1798" N	6° 22' 44.211486" W	56° 39.936' N	6° 22.737' W	56.6656055	-6.378947635
	56° 37' 0.824596" N	6° 15' 39.989768" W	56° 37.014' N	6° 15.666' W	56.61689572	-6.261108269
	56° 36' 30.224254" N	6° 15' 44.175636" W	56° 36.504' N	6° 15.736' W	56.60839563	-6.26227101
	56° 36' 15.212423" N	6° 16' 1.476516" W	56° 36.254' N	6° 16.025' W	56.60422567	-6.26707681
	56° 36' 9.918594" N	6° 16' 28.285421" W	56° 36.165' N	6° 16.471' W	56.60275517	-6.274523728
	56° 36' 22.253738" N	6° 16' 46.988746" W	56° 36.371' N	6° 16.783' W	56.60618159	-6.279719096
	56° 36' 20.682331" N	6° 17' 43.085288" W	56° 36.345 N	6° 17.718' W	56.60574509	-6.295301469
	56° 36' 40.697244" N	6° 20' 16.569053" W	56° 36.679' N	6° 20.276' W	56.61130479	-6.337935848
	56° 38' 26.96483" N	6° 25' 35.229652" W	56° 38.449' N	6° 25.587' W	56.64082356	-6.426452681
	56° 39' 58.262044" N	6° 27' 36.179384" W	56° 39.971' N	6° 27.603' W	56.6661839	-6.460049829
	56° 40' 18.367795" N	6° 27' 18.903107" W	56° 40.31' N	6° 27.315' W	56.67176883	-6.455250863
	56° 40' 43.827442" N	6° 27' 22.536104" W	56° 40.730' N	6° 27.376' W	56.67884096	-6.456260029
	56° 40' 53.302544" N	6° 27' 4.732787" W	56° 40.888' N	6° 27.079' W	56.68147293	-6.451314663
	56° 41' 14.675863" N	6° 27' 13.299412" W	56° 41.245' N	6° 27.222' W	56.68740996	-6.453694281
Mull – Iona	56° 20' 54.155292" N	6° 23' 1.395096" W	56° 20.903' N	6° 23.023' W	56.34837647	-6.38372086
	56° 20' 38.947416" N	6° 21' 0.093146" W	56° 20.649' N	6° 21.002' W	56.34415206	-6.350025874
	56° 20' 27.592224" N	6° 21' 18.46539" W	56° 20.460' N	6° 21.308' W	56.34099784	-6.355129275
	56° 20' 4.053516" N	6° 21' 54.335174" W	56° 20.068' N	6° 21.906' W	56.33445931	-6.365093104
	56° 19' 30.454644" N	6° 21' 53.577148" W	56° 19.508' N	6° 21.893' W	56.32512629	-6.364882541
	56° 18' 50.703156" N	6° 22' 3.292097" W	56° 18.845' N	6° 22.055' W	56.31408421	-6.367581138

CABLE SURVEY CORRIDOR	LATITUDE_DMS	LONGITUDE_DMS	LATITUDE_DDM	LONGITUDE_DDM	LATITUDE_DD	LONGITUDE_DD
	56° 19' 30.326628" N	6° 23' 58.069176" W	56° 19.505' N	6° 23.968' W	56.32509073	-6.39946366
	56° 20' 1.472136" N	6° 23' 25.416748" W	56° 20.025' N	6° 23.424' W	56.33374226	-6.390393541
Mull - Ulva	56° 29' 7.098148" N	6° 9' 4.505116" W	56° 29.118' N	6° 9.075' W	56.48530504	-6.151251421
	56° 28' 56.620333" N	6° 8' 55.393454" W	56° 28.944' N	6° 8.923' W	56.48239454	-6.148720404
	56° 28' 53.103421" N	6° 8' 59.841794" W	56° 28.885' N	6° 8.997' W	56.48141762	-6.149956054
	56° 28' 47.734583" N	6° 8' 46.116658" W	56° 28.796' N	6° 8.769' W	56.47992627	-6.146143516
	56° 28' 46.820694" N	6° 8' 35.348935" W	56° 28.780' N	6° 8.589' W	56.47967242	-6.143152482
	56° 28' 43.268117" N	6° 8' 38.518976" W	56° 28.721' N	6° 8.642' W	56.47868559	-6.144033049
	56° 28' 36.419084" N	6° 9' 6.819667" W	56° 28.607' N	6° 9.114' W	56.47678308	-6.151894352
	56° 28' 39.868518" N	6° 9' 4.885063" W	56° 28.664' N	6° 9.081' W	56.47774126	-6.151356962
	56° 28' 43.28382" N	6° 9' 15.927408" W	56° 28.721' N	6° 9.265' W	56.47868995	-6.15442428
	56° 28' 46.35386" N	6° 9' 9.979956" W	56° 28.773' N	6° 9.166' W	56.47954274	-6.15277221
	56° 28' 57.466333" N	6° 9' 15.313288" W	56° 28.958' N	6° 9.255' W	56.48262954	-6.154253691
	56° 28' 55.922675" N	6° 9' 27.92282" W	56° 28.932' N	6° 9.465' W	56.48220074	-6.157756339
	56° 28' 57.705542" N	6° 9' 30.481387" W	56° 28.962' N	6° 9.508' W	56.48269598	-6.158467052
	56° 29' 5.77972" N	6° 9' 26.184204" W	56° 29.096' N	6° 9.436' W	56.48493881	-6.15727339
	56° 28' 58.503655" N	6° 9' 8.482208" W	56° 28.975' N	6° 9.141' W	56.48291768	-6.152356169
	56° 29' 8.136391" N	6° 9' 9.261259" W	56° 29.136 N	6° 9.154' W	56.48559344	-6.152572572
Seil - Easdale	56° 17' 41.899672" N	5° 39' 5.65614" W	56° 17.698' N	5° 39.094' W	56.29497213	-5.65157115
	56° 17' 35.895556" N	5° 39' 4.300322" W	56° 17.598' N	5° 39.072' W	56.29330432	-5.651194534
	56° 17' 33.959515" N	5° 39' 1.337512" W	56° 17.566' N	5° 39.022' W	56.29276653	-5.650371531
	56° 17' 37.899071" N	5° 38' 31.10995" W	56° 17.6321' N	5° 38.518' W	56.29386085	-5.641974986
	56° 17' 28.715312" N	5° 38' 9.559658" W	56° 17.479' N	5° 38.159' W	56.29130981	-5.635988794

CABLE SURVEY CORRIDOR	LATITUDE_DMS	LONGITUDE_DMS	LATITUDE_DDM	LONGITUDE_DDM	LATITUDE_DD	LONGITUDE_DD
	56° 17' 28.568911" N	5° 38' 5.756114" W	56° 17.476' N	5° 38.096' W	56.29126914	-5.634932254
	56° 17' 27.061757" N	5° 38' 0.732264" W	56° 17.451' N	5° 38.012' W	56.29085049	-5.63353674
	56° 17' 22.041395" N	5° 37' 57.871459" W	56° 17.367' N	5° 37.965' W	56.28945594	-5.632742072
	56° 17' 18.116509" N	5° 38' 2.145221" W	56° 17.302' N	5° 38.036' W	56.2883657	-5.633929228
	56° 17' 13.33689" N	5° 39' 8.261341" W	56° 17.222' N	5° 39.138' W	56.28703803	-5.652294817
	56° 17' 22.990243" N	5° 39' 13.723038" W	56° 17.3831' N	5° 39.229' W	56.28971951	-5.653811955
	56° 17' 28.472536" N	5° 39' 7.811906" W	56° 17.475' N	5° 39.130' W	56.29124237	-5.652169974
	56° 17' 32.29966" N	5° 39' 8.152967" W	56° 17.538' N	5° 39.136' W	56.29230546	-5.652264713
	56° 17' 33.704117" N	5° 39' 13.784004" W	56° 17.562' N	5° 39.230' W	56.29269559	-5.65382889
	56° 17' 39.969492" N	5° 39' 24.989882" W	56° 17.666' N	5° 39.416' W	56.29443597	-5.656941634
	56° 17' 46.252306" N	5° 39' 13.919342" W	56° 17.771' N	5° 39.232' W	56.2961812	-5.653866484