



Scottish Hydro Electric Power Distribution plc

Regional EPS and Protected Sites and Species Risk Assessments

Protected Species Mitigation Plan

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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 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 $1\mu\text{PA}$ @ 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.

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 of SBP or LFE operations;
- For SBP or LFE operations 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.

M1 – Marine Mammal Observers

There will be MMO coverage for the duration of the SBP or LFE activities, with adequately trained and experienced MMO(s) working 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.

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 the Marine Directorate Licensing Operations Team (MD-LOT).



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. 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).

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).

M5 – Designated Seal Haul-Outs

During hours of darkness and in poor visibility when the MMO cannot monitor for the visibility of seals and otters, the equipment must not be started within 200 m of any Special Area of Conservation (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 landfalls 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, shore-based intertidal survey works, and 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.
- 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, personnel onshore or other operations; the above seasonal restrictions shall not apply to intertidal and 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.

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.



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.

3 BASKING SHARK

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

M8 – Basking Shark Monitoring

There will be MMO coverage for the duration of the marine activities, with adequately trained and experienced MMO(s) working standard 12 hour shifts. The MMO will also monitor for the presence of basking shark following the mitigation measures described above for Marine Mammal Monitoring (see Section 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.

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

M9 – Basking Shark Mitigation Zone

During commencement of survey works, 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.

4 OTTERS

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

M10 – Otter Monitoring

There will be MMO coverage 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 (see Section 2).

M11 – Otter Mitigation Zone

When conducting vessel based SBP or LFE surveys in water depths $\leq 10\text{m}$ and within 500 m of any SAC designated for otters, the MMO monitors for the presence of otters in the water, and will delay the start of the survey if any are seen within 200 m of the survey vessel. 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.



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 landfall survey operations.

5 SEABIRDS

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

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.

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.

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.

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; and
- 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 REFERENCES

[JNCC \(2017\). JNCC guidelines for minimising the risk of injury and disturbance to marine mammals from geophysical surveys. April 2017.](#)

[SNH \(2017\). The Scottish Marine Wildlife Watching Code. SNH Guidance.](#)

[The Shark Trust \(undated\). Basking Shark Code of Conduct.](#)