WEST OF ORKNEY WINDFARM

Addendum to the Compensation Implementation and Monitoring Plan

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1. Introduction

1.1 Project background

The Applicant, Offshore Wind Power Limited (OWPL) is proposing the development of the West of Orkney Windfarm ('the Project'), an Offshore Wind Farm (OWF), located at least 23 km from the north coast of Caithness and 28 km from the west coast of Hoy, Orkney. Crown Estate Scotland (CES) awarded OWPL the Option Agreement Area (OAA) in January 2022 for the development of the Project following the ScotWind leasing round which began in late 2019.

The Applicant has produced a Report to Inform Appropriate Assessment (RIAA) and RIAA Addendum detailing the potential impacts of the Project on European sites. Based on the approach taken, following guidance from NatureScot, the Applicant concluded no adverse effect on site integrity (AEoSI) for any European site, with the exception of:

- The guillemot feature at Sule Skerry and Sule Stack Special Protection Area (SPA) from Project alone impacts;
- The kittiwake feature at North Caithness Cliffs SPA from Project impacts in-combination with other project impacts; and
- The kittiwake feature at East Caithness Cliffs SPA from Project impacts in-combination with other project impacts.

For these sites it was not possible to conclude no AEoSI.

While the Applicant concludes no AEoSI for all other sites, it is acknowledged that the Scottish Ministers may reach a different conclusion regarding impacts in-combination with other projects. Therefore, compensation measures are being proposed on a 'without prejudice' basis for the sites and features that the Scottish Ministers concluded AEoSI in their Appropriate Assessment for the Green Volt Windfarm as the Scottish Ministers may be minded to conclude AEoSI as a result of the Project in-combination, specifically for:

- The kittiwake feature at Buchan Ness to Collieston Coast SPA;
- The gannet and puffin features at Forth Islands SPA;
- The kittiwake feature at Fowlsheugh SPA;
- The kittiwake feature at Troup, Pennan & Lion's Head SPA; and
- The guillemot feature at East Caithness Cliffs SPA.

Potential compensation options for each relevant species as reviewed by Furness *et al.* (2013), Furness (2021) and Pizzolla *et al.* (2024) are presented in the Compensation Measures Plan that has been submitted as part of the Derogation Case. The report concluded that removal of invasive mammalian predators from an island where the relevant species breed has potential to benefit these populations.

As discussed in the Compensation Measures Plan, several islands in the Orkney archipelago off the north coast of mainland Orkney, have been identified as a potentially suitable location where breeding seabirds may be under pressure from predation from brown rats, *Rattus norvegicus* and, to a lesser extent, feral cats. Rousay was identified by the Applicant, following the desk-based review, as the preferred location for the compensation measure.

When considering the sites and species for which the Scottish Ministers may be minded to conclude AEoSI as a result of the Project in-combination, the proposed predator removal is unlikely to benefit gannet and therefore the Applicant has proposed disturbance reduction measures as compensation for this species on a without prejudice basis.

1.2 Aims and objectives of compensation measures

The aim of the compensation measures is to offset the impact of the Project on relevant seabird species by removing pressure from mammalian predators at one or more seabird colonies in Orkney and, if required, through reduction of visitor disturbance at gannet colonies. This Compensation Implementation and Monitoring Plan details how this can be achieved through the following actions:

1. Installation of a mammalian predator-proof exclusion fence(s) around some part(s) of the island(s) containing seabird colonies, followed by eradication (brown rats) or removal (feral cats) of invasive mammals within fenced off areas.
2. Identification of 'hotspots' of disturbance at an existing gannet colony followed by the implementation of measures, such as the installation of hides, to reduce the level of disturbance.

While the compensation measures are targeted at the relevant species listed in section 1.1, the measures are anticipated to benefit a variety of seabird species.

1.3 Purpose of this document

This document provides information on how the measures proposed by the Applicant can be implemented and monitored, if required by the Scottish Ministers. It provides information to enable the Scottish Ministers to be satisfied that compensatory measures proposed by the Applicant can be delivered in a timely manner and can be relied upon to secure the overall coherence of the National Site Network. Information about monitoring, reporting, programming and management are included throughout this document.

2. Summary of Proposed Compensation Measures

Following a review on seabird compensation measures considered by Furness *et al.* (2013), Furness (2021) and Pizzolla *et al.* (2024) the Compensation Measures Plan presents the evidence for a variety of potential compensation measures and concludes that the control of mammalian predation at seabird colonies within Orkney is likely to be an effective means of compensation for populations of relevant species potentially impacted by the Project alone and in-combination with other projects.

It is proposed that, due to the size, population and level of agriculture on many of the Orkney Islands, the reduction of mammalian predation on the relevant species would be best achieved through the installation of predator-proof fence(s) followed by a programme of feral cat removal and rat eradication within fenced off area(s).

In the event that the Scottish Ministers determine that direct compensation is required for gannet, this could be provided through disturbance reduction measures (see section 3). In the event that the proposed compensation measures prove to be unfeasible or less effective than anticipated, alternative measures in the form of contribution to a Marine Recovery Fund (MRF) or collaboration with the Orkney Native Wildlife Project have been identified and are presented in the Compensation Measures Plan.

2.1 Predator-proof fencing, eradication and removal

Predator-proof fencing has been used globally to control a wide range of invasive mammals including rats, feral cats, mink, foxes, hedgehogs, rabbits and other mammals (see reviews by Cooper, 2013 and Furness, 2013). Predator-proof fences are common conservation tools implemented effectively in Hawai'i and New Zealand, providing conservation benefit to native wildlife, including many species of ground nesting bird.

For example, predator-proof fences installed in the United States were deployed very effectively in Hawaii at Ka'ena Point Natural Area Reserve to protect vulnerable populations of wildlife (Young *et al.*, 2012). Fences two metres tall were set up in November 2010 to February 2011 around 20 ha of coastal habitat within Ka'ena Point to prevent predators (including dogs, cats, mongooses, rats and mice) from entering the protected area. Predators were eradicated within the enclosed 20 ha – it took three months to complete for all predators except mice, which were eradicated within an additional six months.

In New Zealand, predator-proof fences have been in use since the 1990s – 2000s, to protect native wildlife from invasive mammalian predators in a number of locations (Burns *et al.*, 2012). These locations include areas such as the Zealandia sanctuary in Wellington, an area of 225ha enclosed by 8.6km of fencing specifically developed, following trials, to exclude all mammalian predators, including possums, feral cats, Norway rats, stoats and mice. The fence, 2.2m high with a 6 x 50mm mesh, that extends 400mm underground, was installed over a five month period in 1999 and to date has proven highly effective at excluding all mammalian predators with the exception of mice[1]. New Zealand also has several fenced peninsulas such as the Tāwharanui Open Sanctuary near Auckland, which used a 2.5km predator-proof fence to enclose a 588ha site. Feral cats, possums, Norway and ship rats, weasels, stoats and ferrets were all successfully eradicated in 2004 and efforts are ongoing to eradicate mice, rabbits and hedgehogs[2]. The sanctuary now has thriving populations of native ground nesting and flightless birds.

In the UK, predator-proof fences have been mostly targeted towards larger pest species. White and Hirons (2019) provides guidance for the use of predator-proof fencing to protect ground-nesting birds at RSPB reserves and states that '*predator exclusion fences can be very effective at reducing predation by large, generalist mammalian predators, if they are specified, installed and maintained correctly*'. Predator-proof fencing has recently been used as a compensation measure to protect lesser black-backed gulls from the Alde-Ore Estuary SPA impacted by the development of the Norfolk Boreas and Norfolk Vanguard offshore wind farm projects (MacArthur Green and Royal Haskoning DHV, 2022).

As such, significant development has been undertaken to ensure fence designs that are effective in a variety of locations. Modern permanent predator-proof fencing, if designed appropriately, should require little maintenance and can be effective in excluding almost all mammalian predators (Cooper, 2013; Zealandia, 2021; Xcluder Pest Proof Fencing Limited, 2024, Farm & Country Fencing, 2024).

Mammal removal and eradication from islands is a well-established procedure that has now been carried out at hundreds of sites world-wide and at a small number of islands in the UK (see Furness *et al.* 2013, and Furness 2021 for review). For

[1] https://www.visitzealandia.com/About/History/A-World-First-Sanctuary
[2] https://www.tossi.org.nz/?page_id=73

example, in Scotland, eradication programmes include eradication of black rats from the Shiants and eradication of brown rats from Ailsa Craig, Canna, and Handa (MacArthur Green, 2021). However, although eradication was initially successful at Handa, rats were re-discovered on the island about ten years later, indicating the importance also of biosecurity for islands that have been cleared or never had invasive alien predatory mammals.

Brooke *et al.* (2007), Ratcliffe *et al.* (2009a) and Stanbury *et al.* (2017) developed lists of top priorities for eradication of invasive predatory mammals from islands to conserve vulnerable seabirds. Twenty-two of the 25 top priority sites listed by Stanbury *et al.* (2017) were in Scotland. Although eradications have now been carried out or are underway at a few of these sites, many still have invasive mammal predators impacting seabird populations and preventing recolonisation by seabirds that have been extirpated.

Feral cat eradication has been carried out on at least 48 islands globally (Nogales *et al.* 2004), but to date, cats have not been removed from any island in the UK.

2.1.1 Securing and implementing the compensatory measures

Implementation of this compensation measure will be carried out over four stages:

- Pre-compensation studies and activities;
- Predator-proof fence installation;
- Predator removal/eradication; and
- Post-implementation biosecurity; monitoring and reporting.

The Applicant intends to fund this compensatory measure, including continued management of biosecurity, and any eradication associated with re-incursion events during the operational lifetime of the Project. Should the opportunity arise for collaboration with other developers or organisations, such as the Orkney Native Wildlife Project, the Applicant will take this into consideration.

2.2 Implementation mechanisms

The proposed compensation will be implemented in four stages with each stage comprised of several sub-tasks. The Applicant will develop, manage and implement each of these stages with input from specialist experts as required.

2.2.1 Stage 1: Pre-compensation studies and activities

2.2.1.1 Identification of potential locations

As identified in the Compensation Measures Plan, the preferred island for implementation of compensation is Rousay, which contains colonies of the relevant seabird species with potential for available habitat, and has anecdotal evidence of invasive mammalian predators. Since the eradication of invasive mammals from the whole of the island is considered unlikely to be effective (as the island is relatively large, inhabited and with mixed agriculture taking place), it is proposed that measures to remove mammalian predators are targeted in one (or more) small areas of the island with relevant breeding seabird colonies.

However, details on which location on the island would benefit most from predator exclusion/control and the extent of the area that may need to be fenced off will depend on the results of pre-compensation site visits to record seabird habitat (section 2.2.1.5) and advice from experts on the practicalities of erecting predator-proof fencing (section 2.2.1.6).

Should the feasibility studies determine that there is no location on Rousay suitable for delivery of the required compensation, other islands on the shortlist in the Compensatory Measures Plan will be investigated; namely Hoy, Stronsay and Westray.

2.2.1.2 Landowner agreements

Key landowners have been identified via the Land Registry of Scotland and positive discussions have ensued regarding the possibility of their support for the proposed measure. Through consultation with the landowners, agreements to secure access for feasibility studies and monitoring have been drawn up, including an option for long-term lease of land should compensation be required and the site proves to be suitable. Land rental agreements will secure the site for a period of up to 35 years.

2.2.1.3 Feasibility study

The UK Rodent Eradication Best Practice Toolkit (Thomas *et al.*, 2017) describes seven criteria which a feasibility study should assess:

- Technically feasible – can the entirety of the site be accessed and bait stations distributed so as to remove every last individual of the population at a rate faster than the target species ability to breed?
- Sustainable – is the likelihood of reinvasion by the target species low, or can the risks of reinvasion leading to population re-establishment be reduced through realistic and affordable biosecurity measures?
- Socially acceptable – does the project have support from the community, landowners and key island users, all of whom understand and accept the implications of the project? Will access be granted to every property and all privately-owned land?
- Politically and legally acceptable – Can all required permits and consents be/expect to be obtained? Are the techniques, equipment and materials required are all legal to import/use in the UK?
- Environmentally acceptable – can the impact on the environment be reduced to an acceptably low level? Is the removal of the target species likely to lead to permanent negative changes in the ecosystem? Short-term negative impacts should not be shied away from.
- Capacity – Are all the required resources, skilled people, and equipment available, or can be sourced in a timely manner for the duration of the project?
- Affordable – Can the total cost of the project and ongoing biosecurity be funded before the project commences, including an additional contingency (c. 20%) for unforeseen complications?

An initial desk-based feasibility study was undertaken to identify the preferred location, Rousay, for implementation of the compensation measure. However, the suitability of this location and assessment against the above criteria can only be confirmed by a more detailed feasibility survey including site visits to gather further information on seabird habitats, seabird populations and the distribution and abundance of the invasive mammal population. The feasibility study will include an assessment of the following:

- Abundance and distribution of rats and cats;
- Seabird colony composition, abundance and density;
- Availability of unoccupied habitat that could support an increased number of relevant species;
- Accessibility of the habitat to predators;
- Accessibility of the location to enable effective eradication;
- Suitability of the location for fencing; and
- Non-target species and habitats that may be affected.

2.2.1.4 Predator presence and abundance surveys

Predator presence and abundance surveys will be undertaken outside of the breeding bird season, to avoid disturbance of nesting birds and also at a time when predator food resources are lower and they are more likely to be attracted to bait stations.

The aims of the predator surveys are:

- to assess the presence and abundance of invasive predators (rats and feral cats) across the western portion of Rousay;
- to determine the genetic (DNA haplotype) profile of rats across Rousay and the Orkney mainland zone and assess the significance and implications of difference within these profiles;
- to assess the presence of resistance in the respective rat populations to first- and second-generation rodenticide formulations;
- to explore evidence of diet including indicators of predation on seabirds using stable isotope analyses of tissue samples; and
- to inform the design of the rat eradication and cat removal programme.

To achieve this the field study will be carried out across a maximum 600 Ha of uninhabited land located in the west of Rousay that includes the islands main cliff nesting seabird habitat. It shall also consider predator activity around the populated areas of Wabister, Westness, and the Rousay Heritage Centre on Rousay and the Tingwall ferry terminal on the Orkney mainland.

In order to determine the abundance and distribution of rats, index trapping will be utilised. Index trapping has been adopted as best practice across Europe and the rest of the world (Thomas *et al.*, 2017). It calculates index of abundance that can be used to compare rodent populations in different islands, habitats, and seasons. A network of stations involving the use of

lethal traps baited with peanut butter (non-toxic) will be placed in lines across the study area. Traps will be enclosed within boxes to restrict entry by larger species and will be positioned on level sites with natural cover, where rats are likely to be active (Figure 2-1). Trapping will run for a minimum of four nights, with tracks checked daily and records made of date, location, trap number, capture, sprung trap (set off but no capture) and still set traps. A minimum of 100 corrected trap-nights will be achieved across the habitat type: cliff line, agricultural fields, woodland, scrub, built environment, shoreline, etc. and the results will be used to calculate the Index of Abundance (rats per 100 trap nights).

Figure 2-1 Example of trap used for index trapping

All rats trapped will be necropsied, including stomach content analysis and tissue sampling. Tissue samples will be sent for DNA analysis to enable a genetic comparison to be made between the rats living inside the potential exclusion zone, and those from nearby potential recruitment rat populations including outside the exclusion zone on Rousay, neighbouring islands and the Caithness mainland. DNA analyses completed during the feasibility study will provide information on the various populations as a basis for genetic comparison if rodents are discovered and collected within the eradication zone after an eradication programme has been completed. This will gauge whether there was a reinvasion, or the eradication had failed. Resistance to a number of rodenticides is known in the UK, particularly for brown rat. Tests for resistance will be carried out on the DNA samples. This will be vitally important to deciding which rodenticide formulations will be most effective in any subsequent eradication project.

Whisker samples together with any locally available seabird feathers will be submitted for stable isotope analysis, complimenting the stomach content analyses, to infer information on whether the rodents have been predating on seabird eggs, nestlings, or adults.

In addition to index trapping, further information will be gathered on the presence and behaviour of rodents through the use of tracking tunnels with ink plates. These will follow a similar approach in terms of positioning and spacing as the traps. Tracking tunnels shall be left in place for a week and run for one night with the card in place and the tunnels and cards collected and tracks identified, counted, photographed, and recorded. The number of cards that had rodent tracks present shall be used to estimate the tracking index (TOI or abundance e.g. 2 out of 10 tunnels with rat tracks = 20% abundance).

Flavoured wax chew blocks shall be made up and positioned and secured on metal rods in a location close to each tracking tunnel (Figure 2-2). These shall be checked daily and left in place over a 5-night period. These blocks are highly attractive to all rodents and will provide additional qualitative information on the presence of potential predators. By checking the teeth marks it should also be possible to determine the presence of different species of rodents, including the presence of mice and voles.

Figure 2-2 Examples of chew wax chew blocks used to identify the presence and species of rodent

These surveys will be an opportunity to determine whether rats will take alternative baits (non-toxic varieties used during the study) and to test different types of bait station for their effectiveness at excluding non-target species such as Orkney vole (*Microtus arvalis orcadensis*) (Figure 2-3). Camera traps will also be utilised at a number of the stations.

Figure 2-3 innovative bait box elevated to minimise access by mice and voles (© Killgerm).

Due to the wide-ranging nature of feral cats and the openness of the habitat on Rousay, pre-compensation monitoring is considered unlikely to be effective. However, should any obviously suitable locations be noted on site, camera traps will be deployed. Innovative methods utilising drones with thermal cameras may be considered to monitor the presence of cats should this be available (and consented).

Site visits undertaken during this time will also provide the information necessary to determine whether the accessibility of the site is amenable to an effective eradication and to identify which cliff areas are accessible to rats and cats, and therefore likely to benefit most from predator eradication.

2.2.1.5 Seabird habitat and count surveys

During the breeding season (March to August), a seabird census will be conducted to provide an up-to-date full colony baseline count at each selected colony using recognised methods as detailed in Walsh *et al.* 1995, including photographic records and digital mapping. For relevant species, pairs of kittiwakes (apparently occupied nests, AON) and individual (IND) guillemots and will be counted. Although the focus will be on counting relevant species, all species would be included in the census, including the presence of any avian predators.

Seabird counts will be conducted by ornithologists on land where access is practicable and disturbance to breeding seabirds is minimal. Counts will be conducted by boat for inaccessible areas of the coast.

At the same time, an assessment will be made of how accessible the colonies are to predators and the amount of suitable unoccupied habitat that could be available to relevant species following the removal of pressure from mammalian predators.

2.2.1.6 Fencing feasibility surveys

Following identification of suitable colonies that could benefit from the removal of mammalian predators, a fencing contractor with experience in predator-proof fencing, will conduct surveys to determine the feasibility of fence installation in these areas. Surveys will focus on gathering the following information:

- Assessment of ground conditions and site access;
- Evaluation of the vegetation, soil structure and depth;
- Assessment of the route of the fence line as well as start and end points;
- Assessment of whether the fence can be buried all the way along the fence line;
- Assessment of the requirement and location of predator-proof gates (for humans to pass through) along the proposed fence line;
- Testing for positioning anchor stations for any rope access required; and
- Consideration of logistics and cost.

Results and conclusions of the fence line surveys will be shared with stakeholders in the form of a report written by the fencing contractor.

2.2.1.7 Wider ecosystem surveys

In conjunction with the fencing suitability surveys, the locations will be surveyed by an experienced ecologist who will identify sensitive habitats that should be avoided where practicable. The ecologist will also look for signs of species that may be affected by the installation of a fence. For example, while efforts will be made to avoid any watercourse crossings, if this is unavoidable, the ecologist will assess the watercourse for potential use by species such as otter.

The results of the wider ecosystem surveys will be used to undertake a detailed assessment of potential impacts on designated sites and features, such as the Rousay SSSI.

2.2.1.8 Communication and Engagement Strategy

Stakeholders, including the local community, NatureScot, RSPB and local planning authorities will be consulted on all aspects and stages of the compensatory measures and will be kept engaged throughout the implementation and monitoring stages. Compensation plans have been consulted upon with relevant stakeholders, most notably NatureScot and local planning authorities, prior to submission of the additional information. Landowners on Rousay have also been consulted prior to submission but will be subject to further, more detailed consultation along with the community of the selected location(s) as the compensation develops.

To facilitate this, a Communication and Engagement Strategy will be prepared that will outline the approach to communicating and engaging with stakeholders, residents, visiting members of the public and the media.

Good communication and engagement may be achieved as follows:

- Regular consultation meetings held with stakeholders;
- Consultation with the community regarding microchipping and neutering of cats caught within fenced off areas;
- Regular community engagement meetings;
- Provision of information leaflets explaining the compensation measures;
- Display panels explaining the compensation measures, why they are important for conservation as well as risk information regarding bait stations and the presence of rodenticides;
- Clear warning signs (detailing the eradication, bait station design and danger from bait) would be placed at any suitable landing beaches within the enclosed fenced area. Warning labels will be placed on all bait stations advising visitors not to touch the stations or bait;
- Education about seabird conservation through school and university teaching programmes;
- Education through popular science journalism; and

- Education through volunteering participation in citizen science monitoring of the seabirds.

The Communication and Engagement Strategy will be updated and adapted during the lifetime of the Project, depending on outcomes of the compensation measure programme.

Pre-consent, an expert topic group (ETG) will be used to engage with regulators and interested stakeholders. Should consent for the project be granted, a steering group will be convened by OWPL. This group will help steer the delivery of any compensation measure implementation and maintenance, monitoring, reporting and any other relevant matters as determined by the Applicant. It is envisaged that core members of the steering group will be the relevant Statutory Nature Conservation Bodies (SNCBs), as well as the local planning authority and owners and/or managers of the site(s) at which predator-proof fencing is planned to be implemented. The RSPB and other relevant parties will also be invited to form part of the steering group in an advisory capacity.

2.2.1.9 Operational Plan

An Operational Plan will be produced to define and collate the following information related to the fence installation and predator removal/eradication:

- Scope and method statements – summarising the overall aim of the measures and how it will be achieved.
- Health and safety plan – listing the health and safety risks associated with the fence installation and removal/eradication activity, including those identified during the site feasibility surveys, and detailing the measures put in place to avoid or manage those risks.
- Approach to permitting – detailing the permits and licences required to undertake the fence installation and removal/eradication activity, what point in the programme they are required and who is responsible for obtaining them.
- Equipment – listing the equipment required to complete the fence installation and removal/eradication activity, at what point in the programme it is required, where it will be sourced from, who is responsible for sourcing it and any specific storage requirements.
- Organisational arrangements – listing the team structure and project personnel required. Detailing the responsibilities of each of the team members. This section will also detail the logistical arrangements (i.e. on-site accommodation and storage, travel and site access).
- Mitigation planning – detailing any foreseeable issues and how these will be dealt with.
- Non-target species management plan – highlighting the potential risks to non-target species and habitats and listing the measures that will be put in place to avoid or minimise and monitor these.
- Approach to adhering to Communication and Engagement Strategy – listing the key stakeholders, the points at which consultation will take place, and how this will be done.
- Long-term monitoring and biosecurity planning – detailing the long-term monitoring requirements and approach, including measures to be included for biosecurity.

2.2.2 Stage 2: Installation of predator-proof fencing

This section outlines the current proposed approach to install predator-proof fencing. This approach will be confirmed and agreed with stakeholders and the steering group when preparing the Operational Plan.

2.2.2.1 Summary description

The fence design and positioning will be informed through consultation with the steering group, the RSPB, who have considerable experience of the pros and cons of fences to exclude mammalian predators (White and Hirons, 2019), and the appointed fencing contractor, who will be experienced in installing fencing for mammalian predator exclusion.

Avoiding or minimising social impacts of the proposed compensation measure is a key consideration. While the location of the fence will be dictated primarily by the seabird colonies, efforts will be made to minimise as far as practicable, the area(s) to be fenced off. Community engagement (see section 2.2.1.8) will be used to determine the most preferrable fence design and indeed consultation has already been undertaken with Orkney Islands Council who have advised on the height and form of the proposed fence.

Based on previous compensation measures using predator-proof fencing to protect ground nesting seabirds in the UK (MacArthur Green and Royal Haskoning DHV, 2022) and the design of modern predator-proof fencing which evolved in New Zealand (Cooper, 2013) it is likely that predator-proof fencing will have the following key aspects:

- Height of around 1.8m – high enough to prevent animals jumping over the fence;
- Metal posts – marine grade to avoid corrosion;

- Wire mesh gauge of at least 1mm – to prevent animals chewing through the fence;
- 6mm mesh size for lower half of the fence, 50mm for upper half – to prevent rats and larger mammals gaining access through the mesh;
- At least 300mm of mesh buried horizontally at a depth of 100-150mm below ground – to prevent animals from burrowing under the fence;
- Overhanging top, up to 600mm, preferably curved, with loosely tensioned 'floppy' mesh – to provide unstable and difficult purchase for animals attempting to climb the fence; and
- Access gate with concrete base – allowing the gate to open but preventing animals from creating an accessible gap under the gate.

Water crossings will be avoided if possible but if required these will have mesh to the base of drainage channels, to prevent predator access via the watercourse.

A photograph of an example fence designed to exclude feral cats is provided below (Figure 2-4).

Figure 2-4 Example of a fence designed to exclude feral cats. The photograph shows a 3 km long predator fence across Kangaroo Island, Australia.

The installation of fence enclosures will be carried out with the use of common agricultural vehicles as well as by hand. Installation will be completed in two general steps as follows:

- Step 1 – Where ground conditions and site access allow, the fence posts which will provide the structural support required to carry the pest-proof mesh will be driven into the ground using a powered post driver. Where access is limited for the use of powered tools, posts will be hammered into the ground using hand operated post drivers.
- Step 2 – The pest proofing wire mesh will be attached to the fence and any excavated earth or vegetation turves will be reinstated around the base of the fence.

2.2.2.2 Dependencies/constraints

It is proposed that predator-proof fencing will be placed along suitable parts of the coastline in one or more of the selected locations. To assess the practicalities of fence installation and to choose areas where it is possible to install a fence-line, pre-compensation field studies conducted by the fencing contractor will be carried out to assess potential routes.

Metal fencing will be at risk of corrosion from salt spray at most coastal locations on Orkney. To limit corrosion, fencing would consist of marine grade metal posts with thick galvanized steel wire mesh that is resistant to corrosion. Rust preventative paint could also be periodically applied to prevent corrosion if necessary.

White and Hirons (2019) note that vandalism can be a significant issue with fences, especially where a few people consider the use of a fence to be an inappropriate limitation on their activities. As part of the Communication and Engagement Strategy, it is proposed that engagement with the community will take place and appropriate signage will be used as well as regular monitoring of the integrity of the fences (section 0).

The fence line may preclude any other land use and access within the fenced off area. As part of the pre-compensation Communication and Engagement Strategy, the final proposed location and land take would be developed with landowners/tenants. Furthermore, it is possible to build in predator-proof gates into the fence line, the potential requirement and location of these gates will be discussed with all relevant parties as part of the Communication and Engagement Strategy.

2.2.3 Stage 3: Mammalian predator control (feral cat trapping and removal, rat eradication)

This section outlines the current proposed approach to control invasive mammalian predators within the fenced off area(s). This approach will be discussed with stakeholders when preparing the Operational Plan.

2.2.3.1 Feral cat trapping and removal

Immediately prior to completion of the fence installation, a thorough inspection of the enclosed area(s) will be undertaken to ensure that as far as practicable, there are no cats present inside the fenced off area. This is expected to take the form of a group of personnel, walking a line across the (mostly complete) enclosed area, with the aim of flushing any cats in front and out through the last unfenced section of the enclosure. Several passes will be conducted (e.g. over the course of a day) to increase confidence that as many cats as possible have been flushed out. Whilst this is not a verified method it is considered a reasonable approach to attempt to reduce the number of cats to be trapped.

Once the fenced off enclosure is complete, any cats remaining within the enclosure will be caught using humane cage traps (Ratcliffe *et al.* 2009b, Nogales *et al.* 2004). Initially, open cage traps will be left for one week or more (without the trap closing) so that the cats become accustomed to them and accept them as part of the terrain. Cage traps will be baited (using meat, fish or cat biscuits) and placed along likely cat thoroughfares in locations concealed from the public.

Traps will be set in the evening and checked early the following morning. It is anticipated that traps will be set for a period of up to six weeks, or less depending on the number of cats caught, with the number of trapped cats being reduced to zero by the end of the trapping period.

Trapping will be accompanied by the use of sand pits and camera traps to detect the presence of cats that may have evaded the traps and the requirement for extended or targeted trapping. As noted in section 2.2.1.4, the use of innovative monitoring methods, such as drones with thermal cameras, will also be considered.

It is proposed that the trapping phase will be carried out in the winter (September to February) when feral cat numbers are at their lowest (away from human habitation) due to naturally lower food resources. If cats are detected at the end of the winter (i.e., February/March) a second trapping and removal programme will take place during the following winter followed by continued monitoring operation until all cats have been removed from enclosed areas.

The next steps relating to cats caught within the enclosed area will be fully discussed with the residents of the islands selected as well as stakeholders as part of the pre-compensation Communication and Engagement Strategy. All pet owners will be offered the opportunity to have their cat registered and microchipped as well as given a reflective cat collar so that their pet can readily be recognized as domestic during day or night.

It is proposed that all captured cats within enclosed areas will be scanned for the presence of a microchip, and if the animal is not marked, it will be tagged, neutered and then released outside the fenced enclosure. Animal welfare organisations including the Scottish Society for Prevention of Cruelty to Animals (SSPCA) and the Cats Protection League will be consulted on acceptable practice. A licence may be required from NatureScot to re-release feral cats after trapping, this will be confirmed during preparation of the Operational Plan.

2.2.3.2 Rat eradication

The proposed rat eradication operation will be assessed using the internationally recognised ethical principles of Humane Vertebrate Pest Control developed by RSPCA Australia (Humane Vertebrate Pest Control Working Group, 2004).

Rat eradication will follow advice and guidance presented in the UK Rodent Eradication Best Practice Toolkit (Thomas, *et al.*, 2017) which provides guidelines adapted from international standards for use in the UK[3].

The rat eradication programme will be a ground-based operation using bait stations containing an anticoagulant rodenticide, which is currently the most widely recognised effective method of eradicating rodents from islands (DIISE, 2018).The design of the bait stations will be informed by the trial of different trap types during the feasibility study, minimising the potential for other species to access the bait and will be positioned in a grid, ranging from 25 m x 25 m to 50 m x 50 m, across enclosed areas.

Each bait station will have an individual number, plotted using GPS and all data put into a GIS-linked database. Once all the bait stations are in position, they will be left for one week or more (without toxin in them) so the rats become accustomed to them and accept them as part of the terrain. Following this, the rodenticide will be added to the bait stations.

Bait stations will be checked a minimum of every two days, replacing bait as rats consume it. Partially eaten bait will be replaced with a new block. Old or partially eaten bait will be disposed of at a registered landfill or incineration facility as recommended by the safety data sheets. Checking bait stations enables constant monitoring of bait take and the resulting die-off of rats.

Bait take will be recorded into GIS-linked database apps in the field for ongoing analysis. Refinements to the eradication phase will be made from this real time data. Hot spots will be identified quickly and targeted throughout the programme allowing for real time adaptive management, such as increased density of bait stations or altered quantity of bait within stations.

It is expected that the eradication phase will be carried out in the winter (September to February) when rodent numbers are naturally at their lowest, and when natural food supplies are low. This means that there are fewer rodents to catch, and those that do remain are more likely to take the bait in the absence of other food sources.

It is anticipated that stations will be baited for a period of up to six weeks during which time the bait taken is expected to be reduced to zero.

Following the initial period (up to six weeks) of baiting, it will be vital to establish an intensive monitoring programme to detect any rats which may have escaped eradication. This will involve searching, recovering and disposing of rat carcasses, installing and maintaining a monitoring network.

A grid of rat-attractive food items as well as chew cards would be pegged out as monitoring tools across enclosed area(s). Tracking tunnels and trail cameras would also be used. Beach surveys for footprints in the sand would also occur, if appropriate.

The coverage of the monitoring grid will extend beyond that of the bait stations; one monitoring point at the station and one in-between two stations. Each monitoring site will be checked every two days to detect rat sign (for example teeth marks or footprints or footage on camera). If any rat sign is detected, an intensive targeted baiting programme would be started until rat signs in the area ceases.

All intensive monitoring points will be recorded on GPS, entered into the GIS-linked database, and mapped to ensure coverage of the island.

The intensive monitoring phase of the programme would start immediately following the baiting phase and continue until the end of winter (February/March). If rat signs are detected at the end of winter a second baiting programme will continue in the following winter (after the breeding bird season). This cycle would be repeated until rats have been eradicated within fenced off areas.

In order to declare the area as rat free, a further intensive monitoring phase is undertaken two years after baiting, to account for the average lifecycle of a rat.

2.2.3.3 Dependencies/Constraints

Eradication of feral cats can be more complex than eradication of rats, especially where there is a resident human population with pet cats. Residents are likely to have concerns about the trapping of feral cats within fenced off areas. It is important to note that on islands some cats may go ‘feral’ in the summer, but then return to the houses of residents for the winter. Furthermore, feral/semi-domesticated cats are often valued, especially when part of the farming community. As part of the pre-compensation Communication and Engagement Strategy, residents will be fully consulted regarding the treatment of feral cats with options of neutering and tagging discussed.

[3] UK Rodent Eradication Best Practice Toolkit is available at: https://www.nonnativespecies.org/non-native-species/management-guidance/hydrocotyle-ranunculoides-floating-pennywort/#UKrodentredication

2.2.4 Stage 4: Post-implementation biosecurity, monitoring and reporting

2.2.4.1 Biosecurity

A comprehensive Biosecurity Plan will be necessary to prevent the re-incursion of predators following removal/eradication. The biosecurity requirements will be site specific and informed by the feasibility surveys and removal/eradication phase. It will be necessary to identify areas or activities with the greatest potential to allow predators to access the fenced off area, i.e. where access is required for monitoring or management and what equipment is being brought to site, and develop measures to reduce the risk.

The Biosecurity Plan will be developed in consultation with stakeholders and will detail protocols for high-risk activities.

2.2.4.2 Monitoring

Following the programme of erecting predator-proof fencing, trapping, removal and eradication of mammalian predators, the Project will undertake monitoring to detect reincursions, observe changes in the seabird community and determine the need for adaptive management. The monitoring programme will address four features:

- Fence integrity;
- Predator incursion;
- Seabird populations; and
- Wider ecosystem effects.

Fence inspections

A critical feature of the compensation measure is that predator-proof fence enclosures continue to prevent entry by mammalian predators. Thus, it is important that the full length of the fence line is inspected on a regular basis and any damaged or weak areas are rapidly repaired.

During the breeding season a proposed maintenance schedule would be:

- Inspected on a two-weekly basis (March to August); and,
- Any damaged or weak areas will be rapidly repaired if essential to maintain integrity or if possible, to do so with minimal disturbance.

During the non-breeding season, the following maintenance schedule is proposed:

- Less regular inspections (e.g., 2-3 times per winter), but inspections will also take place following periods of severe weather;
- More substantive maintenance, such as replacing rusted sections of wire or weak posts will be undertaken at this time to avoid undue disturbance to the breeding birds; and
- Routine inspections will take place at such times to allow sufficient time for any substantive repairs to be completed prior to the return of breeding birds (i.e., before the end of February).

At any time, if a breach in the fence is found, additional monitoring would be conducted to check for the presence of mammals within the fenced area.

Predator monitoring

Once the predator-proof fence is fully installed and the eradication monitoring has determined the area to be predator-free, it will be important that the incursion of predators inside the fence is detected rapidly. The frequency and intensity of the long-term monitoring will be discussed with the steering group but a practical approach would be to combine predator monitoring with the fence inspections (section 0) and seabird monitoring (section 0). It is expected that the long-term monitoring would make use of a small number of camera traps and non-toxic bait stations focused along both sides and at the ends of the fence line.

An Incursion Response Plan will be developed, in consultation with the steering group, detailing the actions to be taken should the fence be compromised or evidence of predators be recorded inside the enclosed area.

Seabird monitoring

The following activities derived from Gilbert *et al.* (1998) will form the core requirements for monitoring which will be undertaken annually following installation of the predator-proof fence and continue for the period the compensation is required:

- Counts of relevant species (kittiwake and guillemot) will be undertaken inside and outside of the fenced off area(s) using the same methods detailed in Walsh *et al.* 1995 that were used for the pre-compensation baseline seabird census (section 2.2.1.5);
- The count frequency and total (per year) will be discussed with the steering group, following consultation with key stakeholders, counts may be higher in the first three years following fence installation and then reduced in later years on the understanding that the quality of data collection is not compromised (this would be informed by review of the data collected to date);
- Alongside the counts (as outlined above), productivity of relevant species will be estimated (number of eggs, chicks and fledged young/pair);
- In addition to count data, bird behaviour within the enclosure will be recorded at different stages throughout the breeding season. For example, any kind of behaviour indicating that birds are prospecting the colony, nest building, providing food to partners or chicks, are experiencing disturbance (e.g. alarm calling or flushing), showing aggressive encounters with conspecifics or heterospecifics etc. will be recorded;
- Because it is unlikely that all breeding locations will be visible from any given location it will be necessary to map observed birds to cross-check between vantage points. This will also permit tracking of nest success over the course of the breeding season;
- Counts will be conducted during the daytime (0900-1600) in conditions of good visibility; poor weather (heavy rain, fog, high winds) will be avoided;
- Surveyors will also collect opportunistic observations, such as instances of predation by avian species (e.g., other large gull species and corvids), or disturbance events such human activity (e.g., people walking and dogs) outside the fenced area(s), which may highlight the need for management changes or temporary movement restrictions.
- Surveyors will make note of any observation that could have a bearing on the productivity of a colony, such as signs of disease or starvation within a colony, whether adult birds are recorded together with their eggs/chicks, changes in behaviour of relevant species (e.g. birds flushing from nests at an increasing distance on surveyor approach), appearance of plastic (or other sources of pollution) within the colony/used for nest construction and any sign of nest disturbance or gaps appearing within a colony etc;
- The above methods will be complemented with high resolution photography, to provide a permanent record of how the enclosure(s) is being used; and
- Consideration will be given to the use of drones to obtain aerial images over enclosed area(s), but only if this is agreed with the landowner and SNCBs, and can be done without causing disturbance (a review of best practice drone use indicates that nesting large gulls are highly intolerant of drones, so this option will be progressed with great caution and will only be undertaken if there is high degree of confidence that it will not have negative effects).

Wider ecosystem monitoring

In addition to the fence, predator and seabird monitoring, ecological monitoring of the habitats and other species within the exclusion area will be monitored to detect changes from pre-compensation condition. This will help to identify any unintended effects arising as a result of the fence or removal of predators and enable adaptive management to be developed if required. For example, a managed grazing or mowing regime to maintain specific maritime cliff vegetation communities.

The monitoring method required will depend upon the habitats and species of interest. It is proposed that this monitoring be conducted annually for the first five years following fence installation, and then at a frequency to be discussed with the steering group.

2.2.4.3 Reporting

Once the eradication programme has commenced, an annual report will be produced at the end of each year detailing the results of the monitoring. The monitoring outlined above will provide progress indictors to be used to measure the success of the compensation measures and the progress towards the conservation targets for each species throughout the operational lifetime of the Project.

Although seabird population increase within the fenced off area(s) is unlikely to occur in a linear fashion, as seabird counts naturally fluctuate, the conservation benefit will be framed in annual terms to allow comparison with potential mortality estimates for the Project.

The annual monitoring report is likely to follow this structure:

- Overview of evidence of rat and cat presence within fenced off areas;

- Overview of the results from seabird monitoring
  - Colony counts
  - Mapping nest locations
  - Productivity monitoring;
- Assessment of whether productivity targets are being met;
- Actions delivered;
- Identification of emerging issues; and
- Approach to monitoring for the following year.

The annual monitoring reports and data collected would be shared with key stakeholders including NatureScot and RSPB and all data collected made publicly available where appropriate. The results of the monitoring report would be used to inform the requirement for adaptive management (section 2.3).

2.2.5 Programme for implementation and delivery

The Applicant expects the compensation measures will, subject to consent and condition(s), be in place two years (breeding seasons) prior to operation. Figure 2-5 illustrates how each of the elements of the compensation will be implemented to achieve this timescale.

Feasibility studies will be undertaken in 2024/2025, with predator presence and general site reconnaissance undertaken outside of the breeding bird season, seabird counts and habitat availability assessments undertaken during the breeding season, and fencing and winder ecosystem surveys at the end of the breeding season, when suitable colony locations have been identified. The subsequent 9 – 12 months will be spent undertaking the detailed planning necessary for a successful eradication.

Predator-proof fence installation, rat eradication and cat trapping and removal within fenced off areas will be implemented between September 2026 and March 2027, to avoid the seabird breeding season (April to August), minimising disturbance to breeding birds.

Site specific information, such as the size of area to be fenced and the habitat type, will have an effect on the time required to instal the predator-proof fence and to undertake the predator removal/eradication. However, due to the comprehensive feasibility studies and planning phase, it is considered realistic to estimate 2 months (September - October) for fence installation followed by 6-8 weeks (November – December) for predator removal/eradication, meaning that fence installation and predator removal/eradication can be completed in a single winter.

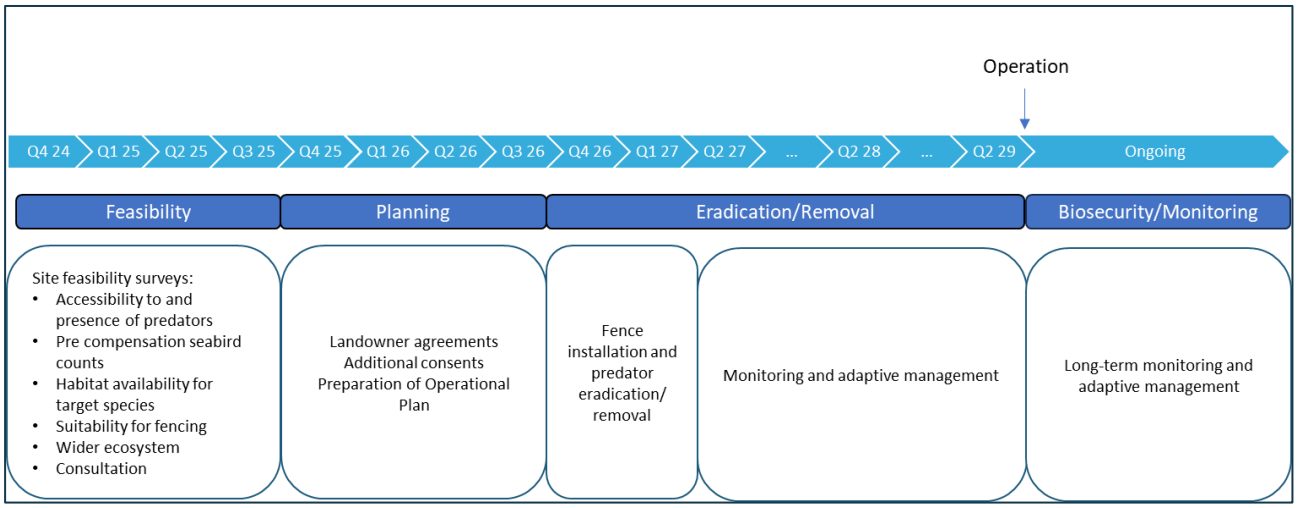

Figure 2-5 Implementation timeline

Assuming the first predator removal/eradication is successful and the site remains predator free for the next two years, this would enable the site to be declared predator free around the same time as operation of wind farm is anticipated. Should the first removal/eradication not be fully successful and a second is required, this may delay the predator-free declaration but the seabird colonies are still anticipated to experience some benefit associated with a reduced predator abundance during that time. Therefore, the Applicant considers the compensation measure to have been implemented following the first year of eradication.

Following declaration of predator-free status the biosecurity, long-term monitoring and adaptive management phase will continue for the lifetime of the Project (up to 35 years).

2.3 Adaptive management

Should post-implementation monitoring reveal that the predator exclusion program is unsuccessful, or less successful than anticipated, an assessment will be undertaken to determine the reasons underlying the lack of success, and to inform the next steps.

Principally, next steps will consist of identifying potential measures that can be implemented to improve the success of the predator eradication/exclusion measure, referred to as 'adaptive management' i.e. adaptations to the existing compensation measure.

The appropriate measure(s) will be dependent on the reason(s) for which the expected compensation is not being achieved. Therefore a key objective of the monitoring programme will be to record any observations that could potentially explain why productivity expectations might not be met. For example, evidence of avian predation, disease or starvation within the colony, disturbance from human activities (e.g. people with dogs walking along the coastline, recreational boating activity close to the coastline) are all potential reasons why there could be a shortfall in productivity against expectations.

During the first months and years of the monitoring period following the initial installation of the predator-proof fence and predator removal/eradication, aside from monitoring for predator presence, monitoring is expected to focus on understanding the mechanisms for colonisation. For example, there may be evidence that birds are not prospecting for nest sites within the fenced off enclosure(s), or prospecting but not settling, or settling but abandoning during nest building, etc. and each of these would lead to a requirement for different adaptive management. Monitoring data will be collected with the aim of understanding the reasons underlying bird behaviour in order to apply the most appropriate adaptive measure.

Other factors which will be monitored if feasible (e.g., if focal nests can be identified and monitored without itself causing disturbance) will include nest attendance rates and foraging trip duration, as these will indicate the degree of effort required by the breeding adults and may indicate reasons for reproductive failure.

An Adaptive Management Plan will be prepared when further site-specific information has been gathered and potential issues can be identified in greater detail. The Adaptive Management Plan will be produced in consultation with the steering group and will be a live document, updated as the compensation implementation and monitoring progresses. Examples of possible adaptive management measures are listed in Table 2-1.

Table 2-1 Example adaptive management measures

Monitoring Outcome	Potential Adaptive Management Measure
Continued mammalian predator presence	Further eradication or trapping with alternative bait, modified baiting station structure, or different trap type.
	Review and adaptation of waste management practices
	Review and adaptation of biosecurity measures
	Fence alterations
No increase in colony size or relevant species productivity	Habitat management (e.g. vegetation clearance)
	Use of attraction methods (e.g. decoys, sound playback, simulated guano)
	Control or diversionary feeding of avian predators

The performance of relevant seabird colonies should not be viewed in isolation but should be assessed in the wider context of breeding success for relevant species locally (i.e. on the island where compensation measures are implemented) and regionally (e.g. Orkney archipelago). Hence, poor breeding success at the compensation colony in a year when poor breeding success is also seen at most other colonies of the relevant species either locally or regionally would be indicative of wider issues (e.g. reduced prey stocks, adverse weather conditions or disease etc) and would not automatically trigger the need for adaptive management at the compensation colony. However, under these circumstances the steering group would look to understand the reasons for poor reproductive performance at the compensation colony, attempt to identify potential remedies and collaborate with relevant groups to understand the wider context in terms of other local or regional colony breeding success.

Conversely, if the compensation colony performs less well than other monitored sites, this would be a strong indicator that adaptive management is required to address the causes.

The monitoring and requirements for adaptive management will be conducted on an annual basis at least until such time as it is concluded that the colony is self-sustaining and performing at least as well as other local colonies.

The Adaptive Management Plan is intended to be a live document that will change with stakeholder input and feedback from ongoing monitoring and reporting. Key elements of plan will need to be expanded as the location and type of implementation is developed and land access agreements reached. Until that point is reached the plan must remain high level.

Should all reasonable adaptive management measures be exhausted and the required compensation still not be achieved, it will be necessary to consider the implementation of 'alternative measures', i.e. as an alternative to the predator eradication/exclusion measure already implemented. This will be informed by the level of success achieved by the predator eradication/exclusion, which will in turn determine the level of compensation still required and will involve an updated review of available compensation measures.

Alternative measures will be discussed and agreed with the steering group and could realistically be expected to include:

- Additional or different predator eradication site;
- Disturbance reduction measures;
- Collaboration with the Orkney Native Wildlife Project; or
- Contribution to a Marine Recovery Fund (or equivalent).

3. Without Prejudice Compensation

In acknowledgement of the potential for the Scottish Ministers to conclude AEoSI for sites/features in addition to those concluded by the Applicant, without prejudice compensation has been identified in addition to the proposed compensation measure. This measure is targeted towards potential compensation required for impacts on gannet from the Forth Islands SPA. Potential compensation required for kittiwake, puffin and guillemot without prejudice to the Applicant's position on AEoSI are considered to be covered by the proposed predator eradication/exclusion, but may experience additional benefit from the without prejudice measure discussed here. The measure proposed in this section would be implemented in addition to the proposed predator eradication measure if required.

3.1 Summary of the measure

The reviews by Furness *et al.* (2013), Furness (2021) and Pizzolla *et al.* (2024) found very few compensation measures that were considered to be effective for gannet. While most of the 21 gannet colonies in the UK are in accessible areas of offshore Scottish Islands, there are a few reported incidences of visitor disturbance impacting gannet colonies. Allbrook and Quinn (2020) reported that, on Great Saltee Island, Ireland, gannet productivity declined with proximity to the edge of the colony accessible to visitors and that bird displacement was negatively correlated with minimum visitor approach distance. It has also been reported that displacement caused by visitors results in the death of around 40 gannet chicks each year at Bass Rock (DTA Ecology, 2020).

In these instances, disturbance occurs when visitor presence is encouraged, to boost public engagement, but there is conflict between either the level or location of the visitor access and the seabird colony. The aim of disturbance reduction measures is to allow the visitor access to continue but in a way that limits the disturbance caused to seabird colonies.

Typical ways of reducing visitor disturbance are:

- Restricting visitor numbers to a site – this is often in conflict with encouraging public engagement and can be difficult to implement in sites with open access;
- Restricting certain activities at a site – for example prohibiting the presence of dogs in certain parts of the site, or prohibiting the use of drones;
- Managing visitor distribution – this is most commonly achieved through path design and management; and
- Reducing the visibility of people to the birds – typically through the screening of walkways and/or provision of hides.

Green Volt have proposed disturbance reduction, primarily through path realignment, at Troup Head, as compensation for the Green Volt Windfarm. Through informal discussions, Green Volt indicated that the level of disturbance at this location is significant and opportunities may exist for further disturbance reduction measures. Therefore, the Applicant will explore opportunities at this site along with identifying other potentially suitable locations.

In a study of the effectiveness of signage in reducing the disturbance of a gannet colony, Allbrook and Quinn (2020) reported that, although the installation of signage resulted in almost 75% of visitors remaining at least 5m from the colony, the remaining visitors, all photographers, still approached to within 1m of the colony. The Applicant therefore proposes to explore opportunities for the visual screening of visitors through the provision of hides at the Troup Head gannet colony, enabling continued visitor access and photography but reducing the level of disturbance caused.

3.2 Implementation mechanism

The Applicant has identified a potential measure to provide compensation for gannet should the Scottish Ministers conclude AEoSI for this species but has not yet progressed the implementation of the measure. The sections below set up how the Applicant intends to progress.

3.2.1 Feasibility study

Initially the Applicant will undertake consultation with the relevant site managers and landowners at the Troup Head reserve to determine the level of support for further measures.

The Applicant will then undertake studies, if required, to determine if there are 'hotspots' of disturbance around the gannet colony, recording colony counts, the level of disturbance and the reactions of the gannets (and other species). This would identify areas where provision of a hide or hides would be most effective, in addition to providing a baseline for monitoring of the effectiveness of the measure.

3.2.2 Design and consent

Hide structures can take a variety of forms (Figure 3-1). Following identification of suitable locations, the Applicant will work with the site manager and landowner, and in consultation with the local planning authority, to design a hide or hides that would:

- be effective in visually screening visitors from the seabirds;
- would be robust;
- would provide the desired opportunities for visitors; and
- would be acceptable in terms of the locality.

Figure 3-1 Example hide structures (© Gilleard Bros Ltd and The Architects Journal)

Formal agreements would be put in place with the site manager with regards to maintenance of the structure(s), which would ultimately remain the responsibility of the Applicant for the operational lifespan of the Project (~35years) but could be taken care of by the site management team with appropriate funding.

All necessary planning consents would be obtained and by undertaking consultation with the local authority and stakeholders during the design of the measure, there would be minimal risk of objection or refusal anticipated.

3.2.3 Installation

Installation of a hide is anticipated to be relatively quick and simple and the Applicant would propose to employ a suitable local subcontractor to undertake the works. Installation would be undertaken in a single year outside of the seabird nesting season, to avoid any disturbance. Following installation of the hide, the gannet colony is expected to experience immediate benefit and therefore the Applicant considers the compensation measure to have been implemented upon installation of the structure(s).

3.2.4 Monitoring

A programme of post-implementation monitoring would be developed with the steering group and is anticipated to include:

- observations on the level of use of the hide;
- the level of visitors choosing still to approach the colony;
- the level of disturbance of the seabird colony;
- seabird colony counts;
- seabird productivity counts.

The duration and frequency of the monitoring would be discussed with the steering group but the Applicant anticipates that it would be annual during the seabird nesting season for the first 3-5 years and then at a reduced frequency in the following years.

Monitoring of the condition of the structure is considered likely to fall under an agreement with the site managers, but could be conducted bi-annually (at the beginning and end of the nesting season) by the Applicant.

3.2.5 Timeline

The Applicant expects the compensation measures will, subject to consent and condition(s), be in place two years (breeding seasons) prior to operation. Figure 3-2 illustrates how each of the elements of the compensation will be implemented to achieve this timescale.

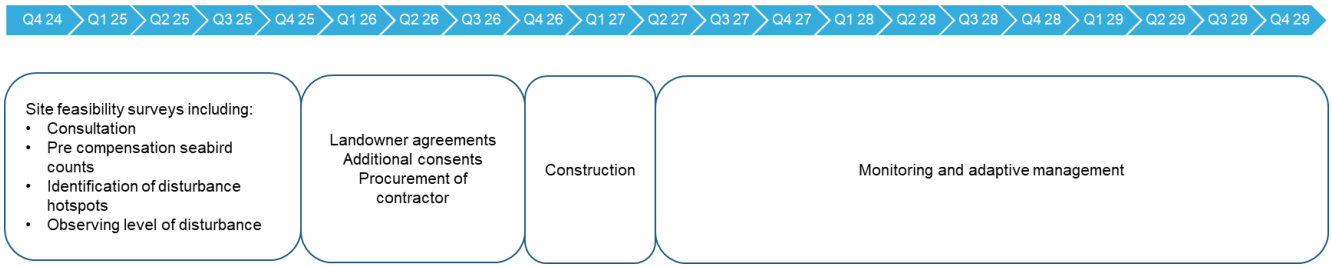

Figure 3-2 Implementation timeline for disturbance reduction measures

3.3 Adaptive management

Should post-implementation monitoring identify that the compensation measure is not effective, the reasons for this will be investigated and an appropriate approach identified to improve the situation.

This will primarily involve adaptations or additions to the disturbance reduction measure as implemented. Examples of potential adaptive management measures are shown in Table 3-1

Table 3-1 Example adaptive management measures for the disturbance reduction measure

Monitoring Outcome	Potential Adaptive Management Measure
Continued visitor approaches to the colony	Installation of signage explaining the importance of maintaining distance Installation of fencing to deter approaches Appointment of a seasonal warden Installation of new hides at additional hotspots Installation of camera allowing visitors to view the colony remotely
Continued reaction of seabirds despite use of the hide	Alteration of hide structure to further reduce the visibility of visitors Installation of additional screening on approach to the hide

4. Summary

In summary, this document presents the process and timeline for how the Applicant intends to deliver the ornithological compensation required for the West of Orkney Windfarm. This will be achieved through the implementation of predator exclusion and eradication at a selected seabird colony or colonies on Rousay, or alternative location if the feasibility studies determine Rousay to be unsuitable, two breeding seasons prior to operation of the turbines.

In addition, the implementation of the without prejudice disturbance reduction measures is presented.

The information presented here, in conjunction with the Compensation Measures Plan, is intended to give the Scottish Ministers confidence that the Applicant can deliver appropriate compensation.

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