

The Scottish Salmon Company



Predator Control Plan

Geasgill, Loch na Keal

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Author	
Approved by	

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Glossary of Terms

DSFB	District Salmon Fisheries Board
MSS	Marine Scotland Science
SSC	Scottish Salmon Company
SSPO	Scottish Salmon Producer's Organisation

1. Introduction

The Scottish Salmon Company recognises that predation on farmed stock is not only of welfare and financial concern to the company, but can have significant impacts to stock containment, and as such will take all reasonable steps to ensure that interaction with predators is minimised with nominal environmental impact to other local wildlife. As a general policy The Scottish Salmon Company (SSC) will not locate any fish farm near grey seal pupping sites.

The anti-predation devices in the following document will be reviewed annually by the site manager and area manager to assess their effectiveness, if found to be unnecessary or ineffective, the appropriate actions will be taken to remedy the situation. In the unlikely event that a predator succeeds in net damage resulting in an escape incident, SSC has a site specific Containment and Escapes Contingency Plan in place.

2. Wildlife Assessment

There are a number of common seal haul-outs in the vicinity of the Geasgill site (as identified by the Sea Mammal Research Unit), although grey seals are also seen by site staff. Typically two or three seals are seen around the site each day, therefore it is thought likely that seals are the most significant potential predator to the site. For this reason the site will be equipped with multiple methods of seal deterrent, and the measures will be monitored regularly by site staff to assess their effectiveness. The site will be fitted with the following anti-predator deterrents.

2.1 Wildlife Log Book

The site staff will fill in a wildlife log book of wildlife sightings around the fish farm to record the incidence of wildlife sightings and any interactions with the fish farm. This will help to determine the need and effectiveness of site anti-predator devices and will help to inform the site and area managers during annual Predator Control reviews.

3. Net Tensioning and Seal Blinds

SSC typically employs a net tensioning system rather than external predator nets to deter seal predation. Net tensioning systems hold the cage net uniformly taut, so that it presents a "wall" to any underwater predator with no slack areas for entanglement or purchase on the net through which a seal can grab or bite fish. The use of a net tensioning system removes the need for predator nets and therefore eliminates the risk of entanglement for predators (both seals and diving birds).

The use of net tensioning is recognised as best practice in terms of predator control. Seal Blinds may also be used on site, which are sections of material hanging down from underwater net panels, acting as a curtain to prevent seals from reaching the fish from below the cage. This system is also recognised as best practice.

3.1 Predatory Bird Protection

Various species of bird are attracted to salmon cages as a potential food source. Surface feeding birds including heron, gannet, and gulls take fish, usually smolts, from or near the water surface, some by shallow plunging from the air. Diving birds, including cormorant, shag, auks and divers obtain their food during dives between periods of swimming on the surface of the water.

SSC will be fitting tensioned 2" mesh nets in conjunction with bird net supports in accordance with RSPB recommendations, which will reduce the risk of bird entanglement. Top nets are inspected and re-tensioned on a daily basis and maintenance conducted as required which further reduces the potential risk of entanglement to birds. There is careful control of fish feed to make sure that it is not left available, and feed spreaders are faced downwards and set to spread the feed evenly so there is no available feed source to attract birds. Scare crows are used on sites with significant bird problems.

4. Effective Husbandry

The presence of mortalities is known as an attractant to seals and an effective mortality removal procedure can reduce predator attacks. Mortalities are removed by a Lift-Up system although manual removal of mort and moribund fish is also completed as required. This practice will reduce predator attacks, particularly from seals, to a minimum. Careful site and waste management procedures are in place that prevent net and rope debris entering the marine environment during site servicing, thereby removing any entanglement risks. The site will be kept in a neat and tidy state and any rubbish found on the adjacent shoreline will be collected by local site staff on a regular basis, to minimise impacts to the local environment.

The above will be done as a requirement at all sites. The following predator deterrents have been identified as potentially necessary in site defence.

5. Acoustic Deterrent Devices

If necessary at the site, Acoustic Deterrent Devices (ADDs) will be fitted. The ADD will be situated on the cages. The ADDs will be the OTAQ SealFENCE, a triggered system used to deter a seal attack. The device will be implemented when site staff note high risk seal activity within the vicinity of the site. A log will be kept of the incidence of attack, and timings and duration of the ADD activation, to be assessed by SSC Managers annually to determine usage.

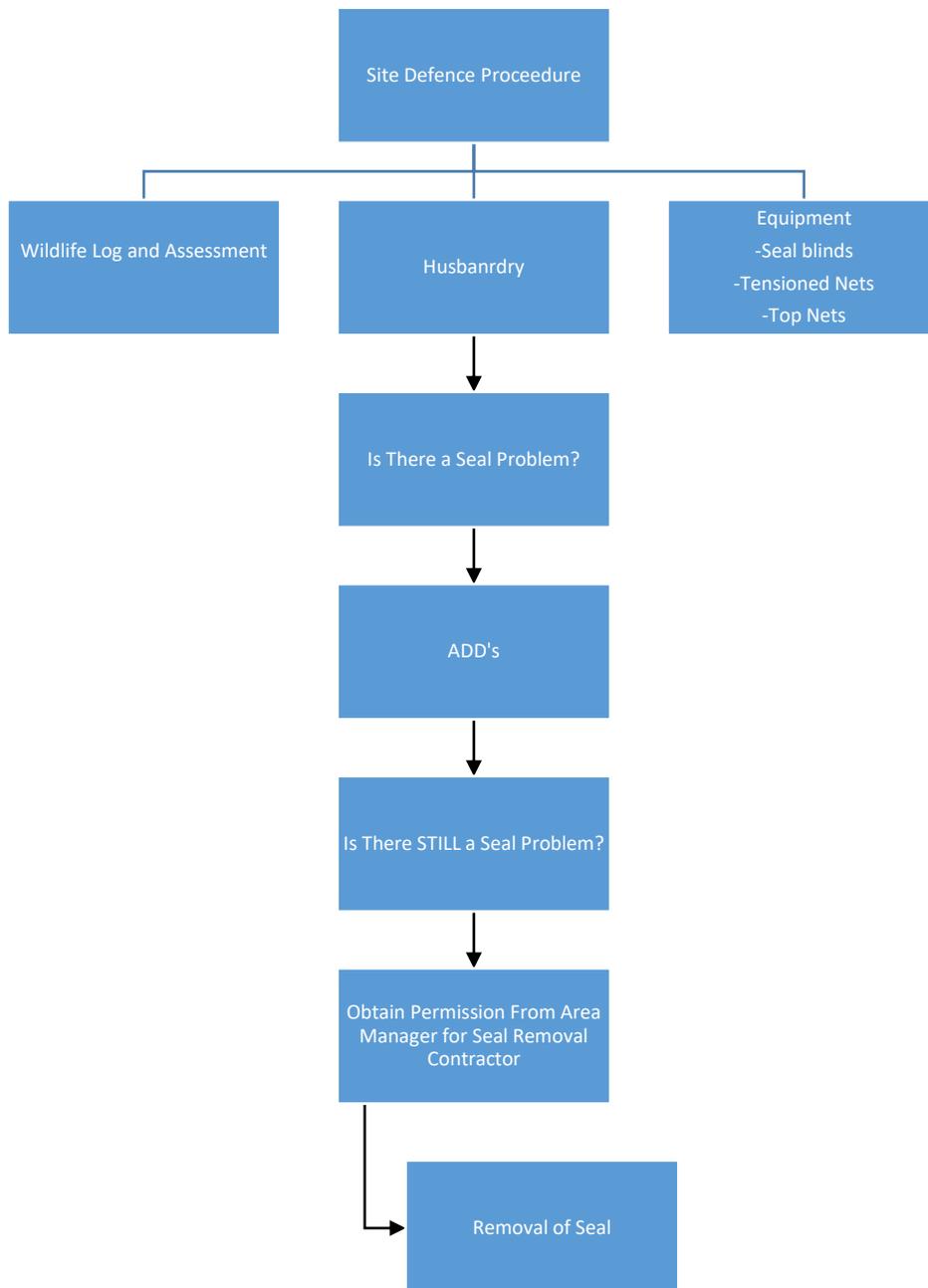
6. Anti-predator nets

It is not common practice for SSC to use anti-predator nets, as there is a high risk of entanglement to diving birds and mammals. However, SSC may consider using these nets in certain circumstances – the Site Manager will consult with the Regional Manager prior to deploying these nets.

7. Dispatch of Seals

If all other methods of deterrents prove ineffective, as a last resort if necessary, persistent problem seals will be shot. Area Managers must approve the requirement to remove problem seal before this action can be taken. SSC will contract a licensed marksman to remove the rogue seal. Records will be kept of seal removal contracts, including the number and type of seals removed from the site and the company will ensure compliance with current legislation. SSC will follow guidelines of Scottish Government, to meet obligations and responsibilities as detailed in the Marine (Scotland) Act, issued in February 2010.

Flow Chart of Anti Predator Device Assessment



T: 0131-244 [REDACTED]
[REDACTED]@gov.scot

Our ref: CR/2018/08
8 January 2019

Dear Sir/Madam

**IMPROVE UNDERSTANDING OF THE USE, IMPACT AND EFFICACY OF
ACOUSTIC DETERRENT DEVICES (ADDS) IN AQUACULTURE
TENDER REF: CR/2018/08**

1. You are hereby invited by the Scottish Ministers to tender for the above mentioned contract.
2. The Invitation to Tender (ITT) relates to a proposed Contract award to a single supplier (consortia, or Prime contractor) to fulfil the requirement.
3. This ITT contains the information and instructions that the Potential Supplier needs to submit a Tender.
4. Your tender must be in accordance with the Instructions for Tenderers and Form of Tender enclosed.
5. Tenders must arrive no later than **12 noon on Tuesday 5 February 2019**. Your tender must be submitted through the Scottish Government e-Tendering System.
6. It is the responsibility the Tenderer to ensure that their tender is received not later than the appointed time. The e-Tendering System will not accept tenders submitted after this time. **Tenders submitted after this time will not be considered.**
7. The Scottish Ministers are not bound to accept any tender Offer received.
8. You are requested to submit your Tender in Microsoft Office Word or PDF format and all pages must be numbered.

9. **Tenderers must submit their completed tenders as a single document except for Schedule 2 and the ESPD document which should be separated from the technical response and attached as separate documents.**
10. Please do not include your tender price within your technical response document – we only need this within Schedule 2.
11. If your tender does not accord with all the requirements of this Invitation to Tender it may not be considered.

Yours faithfully





Scottish Government
Riaghaltas na h-Alba
gov.scot

INVITATION TO TENDER FOR:

**Improve understanding of the use,
impact and efficacy of Acoustic
Deterrent Devices (ADDs) in
aquaculture**

TENDER REFERENCE – CR/2018/08

Improve understanding of the use, impact and efficacy of Acoustic Deterrent Devices (ADDs) in aquaculture

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INSTRUCTIONS FOR TENDERERS

1. It is the responsibility of the Tenderer to obtain for themselves at their own expense any additional information necessary for the preparation of their tender.
2. All information supplied by the Scottish Ministers in connection with the Invitation to Tender shall be treated as confidential by Tenderers except that such information may be disclosed for the purpose of obtaining sureties and quotations necessary for the preparation and submission of the tender.
3. Tenderers may submit a tender using their own text creation facilities: However the content and layout must be identical to the Scottish Executive version of the relevant sections of the tender, and it must be in the same order.
4. Tenderers must submit their completed tenders via the Public Contracts Scotland Portal. Tender responses can be made via the tenderbox facility on www.publiccontractsscotland.gov.uk. This allows tenderers to upload a response which will be held securely and can only be accessed by the Scottish Ministers upon closure of the tendering deadline. Large electronic files may take time to download and tenderers should ensure that sufficient time is allowed for this to be done. The speed with which submissions are made is dependent on the size of the document and inclusion of graphics, logos, photographs etc. should be omitted wherever possible.
5. All information submitted to the Scottish Ministers may need to be disclosed and/or published by the Scottish Ministers. Without prejudice to the foregoing generality, the Scottish Ministers may disclose information in compliance with the Freedom of Information (Scotland) Act 2002, (the decisions of the Scottish Ministers in the interpretation thereof shall be final and conclusive in any dispute, difference or question arising in respect of disclosure under its terms), any other law, or, as a consequence of judicial order, or order by any court or tribunal with the authority to order disclosure.
6. Further, the Scottish Ministers may also disclose all information submitted to them to the Scottish or United Kingdom Parliament or any other department, office or agency of Her Majesty's Government in Scotland or the United Kingdom, and their servants or agents. When disclosing such information to either the Scottish Parliament or the United Kingdom Parliament it is recognised and agreed by both parties that the Scottish Ministers shall if they see fit disclose such information but are unable to impose any restrictions upon the information that they provide to Members of the Scottish Parliament, or Members of the United Kingdom Parliament; such disclosure shall not be treated as a breach of this agreement.
7. Accordingly, if you consider that any of the information included in your Invitation to Tender is commercially confidential please identify it and explain (in broad terms) what harm might result from disclosure and/or publication. It should be remembered though, that, even where you have indicated that information is commercially sensitive, Scottish Ministers may disclose this information where they see fit. Receipt by the Scottish Ministers of any material marked "confidential" or equivalent should not be taken to mean that the Scottish ministers accept any duty of confidence by virtue of that marking.
8. Scottish Ministers may publish, on the Scottish Government website, the names and contact details of companies who have been issued with an Invitation to Tender.

9. This ITT and any associated correspondence are subject to the laws of copyright and must not be reproduced, whether in whole or in part, without the prior written consent of The Authority.

10. You may not in any way advertise or publicly announce that you are entering into discussions with and/or undertaking work for the Scottish Government without the Scottish Ministers prior written consent.

11. The Invitation to Tender is issued on the basis that nothing contained in it will constitute an inducement or incentive nor will have in any other way persuaded a Tenderer to submit a Tender or enter into any contractual agreement.

12. The Scottish Ministers reserve the right to reject any tender which, in their opinion, does not comply with the Specification of Requirements.

13. Any Tender that does not accord with all the requirements herein and in the covering letter may not be considered.

14. Please note that the responses to any questions raised during the tendering period will be circulated to all tenderers in the form of a Circular Advice Note (CAN). The closing date for raising questions is **1200 noon on Tuesday 22 January 2019**. The Scottish Ministers will circulate answers to all tenderers not later than **Tuesday 29 January 2019**. All enquiries should be sent via the PCS Portal.

15. Schedule 9 of this ITT contains the Selection Criteria questions. Tenderers are required to submit a response to each question. Any tenderer who is deemed to have failed to provide an acceptable response to any or some of the Selection Criteria questions, may not be considered further and therefore may not have their tender accessed against the Award Criteria.

16. The evaluation criteria will include consideration of quality as well as price. Each tender will be subjected to a technical and commercial analysis. The aim of the evaluation is to select the tender which represents the Best Price Quality Ratio (BPQR). The BPQR for this ITT is 70:30 in favour of Quality.

17. Full details of the Selection Criteria, Award Criteria and Tender Evaluation methods are contained in the document attached below. The attached document should be read in conjunction with the Schedule 10 (Technical Proposal) and Schedule 2 (Pricing).



ITT - Tender
Evaluation Guidance

18. It is a condition of participation in this Procurement Exercise that the Tenderer accepts the Scottish Government Terms and Conditions attached in Schedule 12.

19. Should a tenderer fail to comply with these terms, Scottish Government reserve the right to eliminate (at its sole discretion) that tenderer from any further participation in the Procurement Exercise.

20. Tenders shall remain valid and open for acceptance for 4 months after the Tender return date. In exceptional circumstances, the Authority's point of contact may request that the Tenderer extend the validity period for a specified additional period. Except for manifest error or as may otherwise expressly be agreed by both the Authority and the Tenderer, the contents of submitted Tenders will be deemed to be binding upon the Tenderer and open for acceptance by the Authority for the duration of the validity period. The Tenderer is therefore cautioned to verify its proposal before submission to the Authority since it is the Tenderers responsibility to ensure that a full appreciation, understanding and comprehension of the Services required, stated or implicit has been achieved prior to Tender submission. No claims will be accepted for items that arise from the Tenderers failure to meet these requirements.

21. The documents required to be completed for your submission response are:

- Schedule 2 (Pricing) **submit as a separate document**;
- Schedule 6 (Approved Subcontractors);
- Schedule 7 (Commercially Sensitive Information);
- Schedule 9 (Selection Criteria), European Single Procurement Document; **submit as a separate document**
- Schedule 10 (Technical Criteria);
- Schedule 11 (Form of Tender);

22. The Scottish Ministers reserve the right to reject or disqualify a Tenderer where:

- the Tenderer fails to comply fully with the requirements of this Invitation to Tender and/or;
- the Tenderer is guilty of serious misrepresentation in relation to its Tender and/or the Tender process; and/or;

there is a change in identity, control, financial standing or other factor impacting on the selection and/or evaluation process affecting the Tenderer.

23. Any Tenderer who directly or indirectly canvasses any officer, member, employee, or agent of the Scottish Ministers concerning the award of the Contract and/or the process leading to that award or who directly or indirectly obtains or attempts to obtain information from any such officer, employee or agent or concerning any other Tenderer, Tender, or proposed Tender may be disqualified.

24. Any Tenderer who:

- fixes or adjusts the amount of its Tender by or in accordance with any agreement or arrangement with any other party; or
- communicates to any party other than the Scottish Ministers the amount or approximate amount of its proposed Tender or information which would enable the amount or approximate amount to be calculated (except where such disclosure is made in confidence in order to obtain quotations necessary for the preparation of the Tender or insurance or any necessary security); or

- enters into any agreement or arrangement with any other party that such other party will refrain from submitting a Tender; or
- enters into any agreement or arrangement with any other party as to the amount of any Tender submitted; or
- offers or agrees to pay or give or does pay or give any sum or sums of money, inducement or valuable consideration directly or indirectly to any party for doing or having done or causing or having caused to be done in relation to any other Tender or proposed Tender, any act or omission;

will (without prejudice to any other civil remedies available to the Scottish Ministers and without prejudice to any criminal liability which such conduct by a Tenderer may attract) be disqualified.

25. Tenders should arrive not later than **1200 noon on Tuesday 5 February 2019**. It is the responsibility of all Tenderers to ensure that their tender is delivered not later than the appointed time. All tenders must be submitted through Public Contracts Scotland Website. The system will not accept tenders submitted after this time. **The Scottish Ministers will not consider tenders received after the closing date and time.**

SPECIFICATION OF REQUIREMENTS

Improve understanding of the use, impact and efficacy of Acoustic Deterrent Devices (ADDs) in aquaculture

Introduction

1. This specification sets out the terms of reference for the research project “Improve understanding of the use, impact and efficacy of Acoustic Deterrent Devices (ADDs) in aquaculture”. The project will assist in gathering evidence on the effectiveness of ADDs in reducing seal depredation and the extent of their use at fish farms in Scotland.

2. Acoustic Deterrent Devices (ADDs) are one of a number of management measures used by the aquaculture industry to reduce seal depredation at fish farms, but in recent years there has been increasing concern about the potential for impacts on cetaceans. Despite the long-term use of ADDs in aquaculture there is 1) a poor understanding of the practical effectiveness of current and new ADDs in terms of deterring seals and reducing predation events at Scottish aquaculture sites, and 2) limited empirical data on the disturbance and displacement of cetaceans as a result of ADD use at Scottish aquaculture sites. These were raised as significant knowledge gaps in a Scottish Government review of ADDs in Scotland¹, therefore the aim of this project is to address some of the recommendations made by Coram et al (2014) in an effort to further develop our understanding of the issue.

3. To address some of these issues requires a greater understanding of the extent of ADD use at aquaculture sites in Scotland. Currently there is limited information on their use (for example, the number, type of device(s) used and mode of operation) which may vary considerably between aquaculture sites. Increasing our understanding of where and how ADDs are used at fish farms will not only enable better mapping of devices, but will also help to inform investigations into the effectiveness of ADDs in reducing seal depredation and the potential for impacts on cetaceans.

4. Assessing the potential for impacts on cetaceans from ADDs, and their effectiveness in reducing seal depredation, can be difficult. They will vary widely based on a number of factors, including sound characteristics of the devices, how they are used (e.g., duration, source level, frequency, duty cycle), the environment in which they are used, as well as species behaviour. Our understanding of the effectiveness of ADDs on seal depredation events in the long-term and the variables that may influence this effectiveness is still limited. Similarly, while a number of studies have been undertaken over the years which have demonstrated that certain devices have the potential to affect some cetacean species (particularly harbour porpoise), there is still a poor understanding of the occurrence of behavioural responses around ADDs *in situ* at fish farms in Scotland and the consequences of any disturbance or displacement of cetaceans.

¹ <http://www.gov.scot/Publications/2014/10/8271/0>

5. Consequently, there is a need to improve our understanding of the use, impact and efficacy of ADDs in aquaculture in order to balance the sustainability of our growing aquaculture industry whilst protecting biodiversity and the environment.

The Study

Aims

6. The aim of this research project is to improve our understanding of the use, impact and efficacy of ADDs in aquaculture. Specifically the study will aim to:

- Undertake a comprehensive assessment of the status and use of ADDs at Scottish aquaculture sites.
- Using an analysis of existing data sources and information gathering techniques, assess the relative effectiveness of ADDs in reducing seal depredation.
- Consider and explore the feasibility of alternative non-lethal approaches for reducing seal depredation.
- Deliver a set of recommendations for future *in situ* field studies to fill key data gaps.

Objectives

7. The research objectives for this project are as follows:

- Undertake a comprehensive assessment of ADD use at fish farms around the Scottish coast. This should include an assessment of the types of devices used by each fish farm (where applicable), their location and the extent of their usage. This information should be presented in a live database that can be updated with new data.
- Using existing information sources and dialogue with industry, undertake an assessment of the effectiveness of ADDs as a tool in reducing seal depredation. This should take account of signal characteristics and/or modes of operation and variables that may contribute to seal depredation events and apparent ADD effectiveness, as well as a consideration of the geographical variability in the use of ADDs and associated results.
- Develop science-based industry guidance on the use of ADDs in aquaculture (to minimise the risks of disturbance to cetaceans) building on Scottish Natural Heritages (SNH) guidance (available on request from SNH²) and in close co-operation with the aquaculture industry.

² E-mail: caroline.carter@nature.scot

- Drawing on recommendations from Coram et al (2014) and advice from the Special Committee on Seals (SCOS) (in draft) review the feasibility of alternative non-lethal approaches for reducing seal depredation at fish farms in Scotland.
- Deliver a set of recommendations for future *in situ* field studies to 1) investigate the occurrence of behavioural responses of cetaceans in response to ADDs, and 2) the efficacy of ADDs in reducing seal depredation.

Methods

8. The successful contractor should develop the proposal in line with the aims and objectives of the project and wider policy requirements. However, as a minimum it is anticipated that the approach would consist of the following research tasks:

- Working in close cooperation with the aquaculture industry (and other relevant organisations), undertake a comprehensive assessment of the extent of ADD use in Scotland. This should involve the collection of data on ADD usage at aquaculture sites in Scotland (for example, covering types and numbers of devices, modes of operation, location, etc.) to help quantify and map the scale and range of use, which will be collated into an appropriate database. To ensure that the data is up to date and reflects current ADD usage, there will be a requirement for the contractor to develop protocols for its continuous use that can be easily followed beyond the life of this contract.
- Using existing data sources (held by Government, academia and industry), and working in close partnership with the aquaculture industry, gain a greater understanding of the effectiveness of ADDs in reducing seal depredation at fish farm sites. We anticipate this involving 1) analysis of existing data sets and 2) structured dialogue with aquaculture bodies to understand drivers and ADD effectiveness in different locations and circumstances. Particular consideration should be given to the signal characteristics and/or modes of operation of ADDs and potential role of other variables (e.g. time of year, weather, operation of fish farms) that may influence seal depredation events and apparent ADD effectiveness. Contact with the Seal and Salmon Working Group (SASWG) which represents industry, academia and Government is essential.
- Explore opportunities to engage with the industry and other relevant organisations in relation to the aims of the project. To facilitate this, the contractor will be expected to have a project plan in place to ensure continuous dialogue and engagement with the industry.
- Building on SNH guidance "*Proposed use of acoustic deterrent deterrents (ADDs) at fish farms affecting the Inner Hebrides and the Minches cSAC,*" drawing on the findings from the above outcomes and working closely with Marine Scotland, SNH and the aquaculture industry, develop science-based industry guidance on the most effective use of ADDs to reduce seal depredation while minimising potential disturbance/displacement of cetaceans. Developing a framework for the assessment of cumulative impacts of ADD will be important.

- Drawing on recommendations and findings of the report “*Evaluating and Assessing the Relative Effectiveness of Acoustic Deterrent Devices and other Non-Lethal Measures on Marine Mammals*” (Coram et al, 2014) and advice from the Special Committee On Seals (SCOS) (*in preparation*), review and consider the feasibility of alternative approaches for reducing seal depredation at fish farms and provide details on where these approaches are being used, how effective they are, financial and logistical feasibility, and any potential constraints associated with their use. Particular focus on nets and associated configurations is encouraged. The outcome of this review should be a set of recommendations on effective solutions with particular consideration of their deployment at Scottish aquaculture sites.
- Deliver a set of detailed recommendations for future *in situ* field studies to 1) investigate the occurrence of behavioural responses of cetaceans in response to ADDs, and 2) the efficacy of ADDs in reducing seal depredation. These recommendations should have regard for current research ongoing, and provide a clear justification, regarding what work, if any, should be commissioned, and provide costings for these elements. As part of this, the contractor should explore the feasibility of field studies and consider a selection of sites for any proposed field trials, including consultations with relevant organisations.
- Close liaison with experts in this research area and the aquaculture industry to ensure that the aims of the project are being met.

The contractor is encouraged to expand and develop their ideas based on the information presented here to fulfil the project requirements in the optimum manner.

Research Outputs

9. Within the first week of the contract the successful contractor will provide a 50 word abstract describing the project for publishing on the Scottish Government website.

10. The successful contractor will provide the Scottish Government with the following outputs:

- Progress reports to be sent to Marine Scotland and Scottish Natural Heritage at a frequency to be agreed. This report should contain information on progress, outputs and deliverables.
- An open access database that includes information on current ADD used (numbers and devices) within the Scottish aquaculture sector. This should be considered a live database and one that can be updated on a regular basis to reflect current ADD use.
- Findings on the efficacy of ADD use with respect to seal depredation.
- Science-based industry guidance on the use of ADDs in aquaculture to minimise the risks of disturbance to cetaceans which will build on the internal SNH guidance on ADD use at fish farms.

- A draft final report for the period of the contract. The content of the report should be agreed with the Scottish Government but it is anticipated that it will include the policy and scientific background, methodologies employed, results, conclusions and recommendations in relation to the aims and objectives of the project. This draft report should be submitted no less than six weeks before the end of the contract and should contain an Executive Summary (no more than two sides) in a format compatible with Microsoft Word. Potential contractors should indicate in their tender who will have the main responsibility for writing the report.
- A research summary which will be published by Scottish Ministers. This should be a 2-4 page summary of the main findings of the research and should be produced separately from the final report. This summary should not be simply a bulleted version of the points in the main report, but should be a wider look at what the findings mean in a wider policy context and may be edited by the Scottish Government.
- An oral presentation of their research findings to the Scottish Government and a range of stakeholders.

Timing and Cost

11. It is envisaged that the study will begin in February 2019 and will be completed by June 2020.

12. The estimated budget for this work is £80k to £100k.

Project Management

13. A steering group will be established to manage the project. The steering group will meet with the contractor after the contract has been let, and at six monthly intervals until the project is successfully completed. The contractor should therefore allow for four meetings in total.

Ownership of Outputs

14. The Intellectual Property Rights (IPR) for this project rest with the Scottish Government.

Sustainable Development

15. The Scottish Government has a policy with regard to Sustainable Development in Procurement. A link to this policy is provided below:

<http://www.scotland.gov.uk/Publications/2009/10/sspap>

Tenders must consider the impact of Sustainable Development in the context of this particular requirement and where possible include within their tender, proposals to incorporate or address these issues.

Sustainability

16.1 The sustainability agenda is of growing importance to the Scottish and UK Governments and the wider public sector. Where services are provided that have sustainability implications, public sector customers need to assure themselves that actions taken on the basis of services is congruent with the organisation's sustainability/corporate social responsibility (CSR) objectives and help them to meet their targets. The Scottish Government's Environmental Policy is as follows:-

<http://www.scotland.gov.uk/Resource/0045/00458528.pdf>

16.2 It is therefore of crucial importance that Contractors and their Subcontractors are increasingly knowledgeable about both the sustainability implications of their services, and public sector objective, policies, standards, targets and legislation. This includes focussing on their suppliers' and their supporting supply chains to ensure that strategies are in place that minimise environmental impact, including low carbon, low waste, reduced water consumption, increased recycling and respecting biodiversity.

16.3 The Contractor shall ensure that its policies and processes will support the Scottish Ministers 'Greener Scotland' strategic objective including: a proactive approach to sustainable consumption and the efficient use of resources; consideration given to social and environmental consequences; policies which ensure that business activities have a direct positive impact on climate change and energy; and policies which encourage natural resource protection and environmental enhancement.

16.4 The Contractor will be responsible for delivering sustainable services which take into account social, economic and environmental factors designed to maximise the involvement of the wider community.

16.5 The Contractor will be required to assist in achieving the Scottish Government's Environmental Policy and their specific targets for sustainability. This covers such areas as:-

- Waste management – Reduction in waste, paper, waste fuels, oils and lubricants, recycling.
- Power – reduction in electrical power, use of renewable energy.
- Climate Change – Use of cleaner fuel engine developments.
- Travel reduction.
- Water reduction
- Noise reduction.

PRICING SCHEDULE

Cost will be firm for the duration of this contract. Charges which appear elsewhere in the proposal but which are not summarised here, will be presumed to have been waived.

Payment will be made in arrears on submission of detailed invoices. The timing and frequency of invoices to be agreed between the Scottish Government and the contractor.

Prices should be quoted in Pounds Sterling (£) and should be exclusive of any VAT which may be chargeable.

Costs should be in financial years (1 April to 31 March) and must show the following details.

Staff Costs

Details of the grading and the percentage of time to be spent by each participant on the project. **Salary costs or Daily Fee Rates should be separately identified for each participant.**

Sub-Contractors

Names of sub-contractor(s) and their detailed costs.

Travel and Subsistence

Where travel and accommodation arrangements require to be made in pursuance of this Contract, such arrangements **must** be made by the most efficient and economical means. Where travelling and subsistence costs are payable, payment will be restricted to the following rates (which are inclusive of VAT), travel other than by car will be paid at cost upon presentation of properly receipted invoices:

Scottish Government Travel and Subsistence Rates

Motor Mileage Rate - £0.45 per mile
Overnight subsistence - £75.00 per night
Meal Allowance - £23.50 per day
Rail/Air travel - Economy/Standard fare rate

These are maximum rates and no payment in excess of these rates will be made.

Other Direct Costs

A breakdown of direct costs, including details of equipment, must be provided.

Overheads

Percentage used to calculate the overheads should also be shown.

VAT (where applicable- if not shown then VAT will not be paid)

Total Project Costs

The total cost for each financial year should be shown, as should the overall total cost of the project.

TOTAL TENDER FIRM PRICE (EX VAT)	£
TOTAL AMOUNT OF VAT PAYABLE ON THIS TENDER	£

Schedule 3

1. **Placing an Order**

1.1 The Purchaser shall give a Purchase Order sent by email to the Contractor which refers to the Contract and:

1.1.1 states the Service requirements; and

1.1.2 states the Price payable for the Service requirements in accordance with the Contract Pricing Schedule 2, where applicable.

MANAGEMENT ARRANGEMENTS

1. Purchaser’s Contract Manager

1.1 The individual named at Schedule 5 clause 1 of the Contract is the Purchaser’s Contract Manager and will be the point of contact for the Service Provider and liaise with the Service Provider on all operational and contractual issues, including complaints and dispute resolution.

2. Performance Management

2.1 The Contractor will operate the Contract and monitor performance in accordance with agreed Key Performance Indicators:

Key Performance Indicators	Frequency
Level of Service:	
Ensure all work stated in Schedule 1 are completed within the stipulated timetable	98%
Contingency Planning – coverage for leave and sickness and no milestones have been missed	100%
Level of Complaints received and dealt within 2 days	95%
Added Value - Actively sought opportunities for continuous improvement and promoting best practice.	To be sought and recorded.
Sustainability targets met	Details to be provided of sustainability policies implemented on our contract.
Processing of Invoices – invoices accurate and submitted one week after task completed.	95%

3. Management Information

3.1 The Contractor will provide fortnightly telephone and email updates to the Purchaser’s Contract Manager to report on progress of this contract. Such reports will contain the Performance against Key Performance Indicators.

3.2 The Contractor will provide quarterly update reports on the data collection progress within ten days of the end of each quarter post commencement of the contract.

3.3 Steering group meetings

A Contract Steering Group will be formed and will meet when the contract is let and at six monthly intervals until the project is successfully completed. An agenda and any associated papers for each meeting must be circulated by the Contractor to the Steering Group members at least 2 weeks prior to each meeting. The Contractor will be expected to provide concise minutes of each meeting, with any actions clearly identified, within two weeks of each meeting.

3.4 All costs associated with the provision of management information shall be the responsibility of the Contractor.

4. Performance Review

4.1 If the Contractor's performance is such that they fail to adhere to the KPIs detailed within Paragraph 2 of Schedule 4 for two consecutive quarters, then the Contractor must submit an improvement plan detailing the actions to be undertaken to improve the future performance. The improvement plan is to be submitted with the bimonthly Performance Report following the second consecutive quarter.

4.2 If the improvement plan is unacceptable to the Purchaser, or if the poor performance persists for a further month, then a separate meeting will be held between the senior management of the Contractor and the Purchaser to discuss the actions to be taken to rectify the situation. The Contractor will be liable for the cost of any actions arising as a result of the meeting, including the costs of engaging third parties if necessary.

5. Dispute Resolution

5.1 Any difference of opinion relating to the Contractor's delivery to the terms of the Contract between the Contractor and the Purchaser will, in the first instance, be presented to the Contractor's Contract Manager and Purchaser's Contract Manager for resolution.

5.2 If the Contractor's Contract Manager and Purchaser's Contract Manager cannot agree on a resolution, then a separate meeting will be held between the senior management of the Contractor and the Purchaser for resolution in accordance with Clause 22 of the Terms and Conditions.

6. Other Monitoring Data

6.1 The Purchaser will have access to data provided by the Contractor on invoices, which will be used to cross-check some of the performance data submitted on the Performance Report.

7. Continuous Service Improvement

7.1 Both Parties acknowledge the need for continuous improvement over the duration of this Contract and that the Purchaser has paid the Contractor for resources that are expected to deliver service improvement.

7.2 The Contractor must put in place appropriate policies, processes, tools, methodologies and/or resources to continuously improve the service throughout the duration of the Contract and provide improved value for money.

7.3 During the period of the Contract, the Contractor shall be required to make proposals to the Purchaser which will:

- a) improve the service(s);
- b) improve technology or methodology used in connection with the services;

- c) reduce costs, including, where appropriate, consequent reductions in prices charged to the Purchaser.

7.4 The Contractor must put in place a process to capture, assess, report and make recommendations to the Purchaser on initiatives and proposals for continuous improvement in the provision of the services.

7.5 Examples of sources of initiatives may include, but are not restricted to:

- a) customer feedback and documentation;
- b) Service Level reporting;
- c) technology developments;
- d) governance;
- e) benchmarking; and
- f) internal audit.

8. Communications with Customers

8.1 The Contractor must clear all literature with the Purchaser. Any subsequent changes to literature must be cleared with the Purchaser prior to issue. The cost of any changes required by the Purchaser will be met by the Contractor.

8.2 Literature includes:

- any leaflets or brochures provided to the customer in support of the Contract;
- any research papers;
- all standard letters issued to customers; and
- customer satisfaction surveys.

8.3 All literature must be in plain English, highlighting any key facts and deadlines to customers.

8.4 The Contractor must adapt or modify the form or manner of communication to assist customers with communication difficulties.

9. Complaints

9.1 The Contractor must acknowledge all complaints received from the Scottish Ministers and advise the Purchaser's Contract Manager of an action plan on how the complaint will be resolved and the expected resolution date.

9.2 If resolution of a complaint is not achieved within the stated timescale the Purchaser's Contract Manager will be updated by the contractor on a daily basis.

10. Complaints: Definition

10.1 Any communication from a customer which meets any of the following criteria shall be classed as a complaint:

- 10.1.1 any communication identified by the customer as a complaint;
- 10.1.2 any query or concern about the quality and/or performance of the service received in administering the applicable loan/grant;

10.1.3 any query or concern about any communications, or failure to communicate, through telephone, electronic means, letter or face to face, including the behaviour of anyone, involved in the delivery of the service; and

10.2 Where a customer raises more than one query or concern relating to different areas of service or delivery, these shall be treated as separate complaints.

11. Complaints: Handling

11.1 The Contractor shall put in place a system for handling complaints, which shall be defined and monitored centrally, be transparent, be easily accessible to customers and be well publicised.

12. Complaints: Resolution

12.1 Within 5 working days from receipt of the complaint, the Contractor must write to the customer advising the action and timescale that will be taken to resolve the complaint and the timetable for doing so in the event that the complaint cannot be resolved within 5 working days.

13. Complaints: Reporting

13.1 The Contractor shall report monthly to the Purchaser on the number and nature of complaints received, source of the complaint, and the average time taken to resolve complaints as detailed within the KPIs.

14. Meetings

14.1 In the event of any issues with the key performance indicators, the Contractor will be required to attend a meeting with the Purchaser's Contract Manager.

14.2 Any such meeting required, will, if possible, take place by video conference or tele-conference to avoid unnecessary travel.

14.3 All costs incurred by the Contractor in attending such meetings will be the responsibility of the Contractor.

15. Invoicing

15.1 The Contractor will be provided with a Purchase Order and the Purchase Order number must be quoted on all invoices.

15.2 Invoices should be sent to the address identified on the Purchase Order and a copy (clearly marked "copy") of the invoices should also be sent as instructed on the Purchase Order.

15.3 The Scottish Ministers have a 10 day payment policy, post receipt of service.

15.4 The Contractor must maintain records of all invoices submitted and make these available on request to the Purchaser, or their representatives, for audit purposes.

15.5 The Purchaser reserves the right to refuse payment of invoices submitted more than six months after the end of the financial year to which they relate. The Contractor must make such arrangements with any subcontractors as are necessary so that the Contractor can invoice the Purchaser within this timeframe.

1. Purchaser's Contract Manager

1.1 The Scottish Government will nominate an individual to be the point of contact for the Contractor. The nominated contact will liaise with the Contractor on all operational and contractual issues, including complaints and dispute resolution.

1.2 Details of a suitably qualified replacement will be provided in the absence of the nominated contact. The Scottish Government nominated contact's details will be included in the contract letter.

2. Contractor's Contract Manager

2.1 The Contractor shall nominate a Contract Manager who shall be the single point of contact, responsible for the daily management of the contract and the nominated Contractor's representative to liaise with the Purchaser and relevant third parties on all operational and contractual aspects, including complaints and dispute resolution.

2.2 Details of a suitably qualified deputy will require to be provided in the absence of the nominated contract.

KEY SUB-CONTRACTORS

The Contractor should list the Key Sub-Contractors below which is seeks to Subcontract its obligations under this Agreement to:

Key Sub-contractor Name and Address (if not the same as the registered office)	Registered Office and Company Number	Related Product/Service Description	Key Sub-contract Price expressed as a percentage of total projected Charges over lifetime of the Agreement	Key role in delivery of the Services

SUB-CONTRACTORS

The Contractor should list the Sub-Contractors below which is seeks to Subcontract its obligations under this Agreement to:

Sub-contractor Name and Address (if not the same as the registered office)	Registered Office and Company Number	Related Product/Service Description

1. PARENT COMPANY GUARANTEE

The Scottish Government will not seek a Parent Company Guarantee for this contract.

SELECTION CRITERIA

Please complete European Single Procurement Document (ESPD) attached and submit as a separate document.

TECHNICAL PROPOSAL

1.1 The Scottish Ministers intend that this contract should deliver exemplary levels of service and value for money. In order for this to be achieved, we require tenderers to provide details of their methodologies for delivering a high quality service.

1.2 Tenders will be evaluated against these requirements and each section carries a weighting to reflect the percentage of the marks allocated.

1.3 Your response should be written specifically about the Scottish Government's requirements. Please do not copy and paste details from other tenders without double-checking it is relevant. Do not include corporate marketing information unless it is directly relevant to the Scottish Government's requirements.

1.4 Additional documents (e.g. spreadsheets, CVs etc.) can be provided but must be included as appendices to your response and clearly referenced using the table provided at the end of this document.

1.5 The Scottish Ministers may undertake, if deemed appropriate, clarifications with tenderer(s) on their tender submissions. This may be in writing or by discussion at a Scottish Government building.

2. Technical/Quality Criteria

2.1 The Technical/Quality criteria is weighted at 70% of the Price/Quality Ratio. Tenders will be evaluated against the requirements set out below and each section carries a weighting to reflect the percentage of the marks allocated.

SECTION 1 – Understanding the Requirement (20%)

1.1 Tenderers should provide an introduction to their proposal, which demonstrates a full and clear understanding of requirements. (50%)

[insert response here]

SECTION 1 – Understanding the Requirement (20%)

1.2 Tenderers must show an understanding of the policy environment and how the proposal addresses the policy problem. (50%)

[insert response here]

SECTION 2 – Method and Added Value of Approach (25%)

2.1 Tenderers must clearly explain how the requirement is translated into a workable methodology and why the methods chosen were selected. (20%)

[insert response here]

SECTION 2 – Method and Added Value of Approach (25%)

2.2 Where appropriate, tenderers should explain how they are developing the brief further to add value. (20%)

[insert response here]

SECTION 2 – Method and Added Value of Approach (25%)

2.3 Tenders must provide evidence of their ability to review multiple data sources, with the aim of drawing out the key information to fulfil the project requirements. The ability to identify data/evidence gaps should also be addressed. (30%)

[insert response here]

SECTION 2 – Method and Added Value of Approach (25%)

2.4 Tenders must clearly explain how they will build and maintain relationships and dialogue with the aquaculture industry and other institutions/organisations involved in the project area in order to further the project outcomes. (30%)

[insert response here]

SECTION 3 - Quality Management and Delivery (20%)

3.1 Tenderers must explain their proposed delivery model and how it will deliver all the requirements of the ITT. As a minimum, this includes details of a) how they will address any ethical issues that may arise (e.g. conflicts of interest) and b) how they will manage costs.

This **must** include a detailed project plan and timetable which details key dates, delivery tasks, project milestones and allocation of staff and staff time against each task, covering the duration of the contract. (25%)

Allocation of staff time against tasks must be provided here as well as in the pricing schedule. The technical evaluators do not see the pricing schedule.

[insert response here]

SECTION 3 - Quality Management and Delivery (20%)

3.2 Tenderers should provide a clear proposal of how they plan to interact with the Scottish Government (initiation, progress reporting, final report drafting, delivery and presentation), specifying the format and frequency of reports to the Scottish Government. (25%)

[insert response here]

SECTION 3 - Quality Management and Delivery (20%)

3.3 Tenderers must explain how they will ensure consistency of approach and control quality of information gathering, evaluation, report writing and other outputs.

This should include mechanisms for project management such as co-ordinating cross-team activity, wider scientific collaborators and engagement with other stakeholders. (25%)

[insert response here]

SECTION 3 - Quality Management and Delivery (20%)

3.4 Tenderers must provide details of the key risks considered relevant to the delivery of this project, (including loss of data, absence of staff). Tenderers should also consider the potential for any conflict of interests if they were to deliver the service and state how these would be mitigated. This includes a risk matrix that also shows how the risks are managed. (25%)

[insert response here]

Issue	Likelihood of Risk (low, medium or high)	Mitigating Action(s)	Recovery Plan

SECTION 4 - Technical Experience and Staffing (25%)

4.1 Tenderers must provide details of all roles and responsibilities they propose for the delivery of the service and provide named individuals against these roles where relevant. This may include a brief CV of what experience, qualifications, competency and specialist skills these individuals possess to carry out the specified role (including that of project managers). Tenders must also provide a commitment that those named in the tender document will be available to work on the contract if the bid is successful. (100%)

Section 5. Corporate and Social Responsibilities (5%)

Sustainability

5.1 Taking into account Schedule 1, Paragraph 16, Tenderers are asked to provide details as to how they their provision of service will contribute to the Scottish Government Sustainability targets. The contributions offered to the sustainability targets shall be assessed and will form part of the Key Performance Indicators. (70%)

[insert response here]

Section 5. Corporate and Social Responsibilities (5%)

Environmental

5.2 Tenderers must indicate how their environmental policies and procedures would be implemented to deliver the most economical advantageous solution. (30%)

[insert response here]

Section 6. Workforce Matters (5%)

Workforce Matters

The Scottish Government (SG) is persuaded by evidence which shows that the delivery of high quality public services is critically dependent on a workforce that is well-motivated, well led and has appropriate opportunities for training and skills development. These factors are also important for workforce recruitment and retention, and thus continuity of service. SG itself has adopted workforce policies to meet these requirements. These policies include:

- a pay policy that includes a commitment to supporting the living wage for the duration of this parliament;
- fair employment practices;
- clear managerial responsibility to nurture talent and help individuals fulfil their potential;
- a strong commitment to Modern Apprenticeships and to the development of Scotland's young workforce;
- support for learning and development;
- no inappropriate use of zero hours contracts;
- no inappropriate use of "umbrella" companies
- flexible working;
- flexi-time; and
- career breaks.

The Scottish Government also attaches importance to ensuring effective consultation and involvement of staff and Scottish Government management work in partnership with the trade union. While it is, of course, a personal decision whether or not to join a Trade Union, the Scottish Government encourages its staff to join an appropriate Union and to play an active part within it, making sure their views are represented.

In order to ensure the highest standards of service quality in this contract we expect contractors whose workers work alongside ours to take a similarly positive approach to workforce-related matters as part of a fair and equitable employment and reward package.

6.1 Please describe how your organisation proposes to commit to being a best practice employer in this respect in the delivery of this contract. Answers need not be constrained to or be reflective of any of examples given alongside this question.

Good answers will reassure evaluators that your company takes the engagement and empowerment of workers seriously; takes a positive approach to rewarding workers at a level that can help tackle poverty (e.g. through a commitment to paying at least the living wage), adopts fair employment practices, provides skills and training which help workers fulfil their potential, that you do not exploit workers (e.g. in relation to matters such as the inappropriate use of zero hours contracts or "umbrella" companies); and that your company will demonstrate organisational integrity with regards to the delivery of those policies, including having arrangements in place to ensure effective employee representation. This reassurance should be achieved by providing tangible and measurable examples that can be monitored and reported during contract management procedures. (100%)

[insert response here]

FORM OF TENDER

(* DELETE AS APPROPRIATE)

*I/We the undersigned do hereby contract and agree on the acceptance of the Tender by the Scottish Ministers, to provide the goods and/or services in the Specification in accordance with the Schedules, at the prices entered in the Pricing Schedule and in accordance with the Scottish Government Terms and Conditions of Contract which appear in this set of documents.

*I/We the undersigned undertake to submit a tender in accordance with the following documents:

- Instructions for Tenderers
- The specification
- Pricing Schedule (**as a separate document**)
- Ordering Procedure
- Management Arrangements
- Key Individuals
- Approved Subcontractors
- Commercially Sensitive Information
- Parent Company Guarantee
- Selection Criteria (**ESPD as a separate document**)
- The Technical Proposal
- The Form of Tender
- Scottish Government Terms and Conditions of Contract

*I/We agree to abide by this tender from **12:00 hours on Tuesday 5 February 2019** the date fixed for receiving tenders, until the Award of Contract.

*I/We understand that the Scottish Ministers are not bound to accept the lowest or any tender and shall not be bound to use the contractor as a sole supplier.

*I/We understand that the service provision will commence on the dates specified, unless the Contract is terminated in accordance with the provision of the Scottish Government terms and conditions of contract.

Signature:

Name:

(BLOCK CAPITALS)

Designation
:

Duly authorised to sign Tenders for and on behalf of:

Name
Tenderer

of

Nature
Firm

of

Address

Telephone
No

INCLUDE AREA CODE

E-mail

Date

<input type="text"/>
<input type="text"/>

It must be clearly shown whether the Tenderer is a limited liability company, statutory corporation, partnership, or single individual trading under his own name.



Scottish Government
Riaghaltas na h-Alba
gov.scot

SCOTTISH GOVERNMENT TERMS AND CONDITIONS 3 (SGTC3) CONDITIONS OF CONTRACT FOR CONSULTANCY SERVICES (other than Works Consultancies)

These Conditions may only be varied with the written agreement of the Client. No terms or conditions put forward at any time by the Consultant shall form any part of the Contract unless specifically agreed in writing by the Client.

1. DEFINITIONS

In these Conditions:

“Contract” means the contract between the Client and the Consultant consisting of the Purchase Order, these Conditions and any other documents (or parts thereof) specified in the Purchase Order;

“Client” means the Scottish Ministers;

“Consultant” means the person, firm or company to whom the Contract is issued;

“Data Controller” has the meaning given in the Data Protection Laws;

“Data Processor” has the meaning given in the Data Protection Laws;

“Data Protection Laws” means any law, statute, subordinate legislation regulation, order, mandatory guidance or code of practice, judgment of a relevant court of law, or directives or requirements of any regulatory body which relates to the protection of individuals with regard to the processing of Personal Data to which a Party is subject including the Data Protection Act 1998 and any statutory modification or re-enactment thereof and the GDPR.

“GDPR” means General Data Protection Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC;

“Intellectual Property Rights” means all copyright, patent, trademark, design right, database right and any other right in the nature of intellectual property whether or not registered, in any materials or works in whatever form (including but not limited to any materials stored in or made available by means of an information technology system and the computer software relating thereto) which are created, produced or developed in connection with this Contract by or on behalf of the Consultant;

“Personal Data” has the meaning given in the Data Protection Laws;

“Premises” means the location where the Project is to be performed, as specified in the Purchase Order;

“Processing” has the meaning given in the Data Protection Laws and cognate expressions shall be construed accordingly;

“Project” means the services to be provided as specified in the Purchase Order;

“Purchase Order” means the document setting out the Client’s requirements for the Contract; and

“Supervisory Authority” has the meaning given in the Data Protection Laws.

2. THE PROJECT

- 2.1 The Consultant shall complete the Project with reasonable skill, care and diligence in accordance with the Contract.
- 2.2 The Consultant shall provide the Client with such reports of his work on the Project at such intervals in such form as the Client may from time to time require.
- 2.3 The Client reserves the right by notice to the Consultant to modify the Client’s requirements in relation to the Project and any alteration to the Contract fee or the completion date arising by reason of such modification shall be agreed between the parties. Failing agreement the matter shall be determined by arbitration in accordance with the provisions of Condition 22 (Dispute Resolution).

3. CONSULTANT’S PERSONNEL

- 3.1 The Consultant shall make available for the purposes of the Project any individuals named on the Purchase Order as key personnel. The Consultant shall provide the Client with a list of the names and addresses of all others regarded by the Consultant as key personnel and, if and when instructed by the Client, all other persons who may at any time be concerned with the Project or any part of it, specifying in each case the capacities in which they are so concerned and giving such other particulars and evidence of identity and other supporting evidence as the Client may reasonably require. The Client may at any time by notice to the Consultant designate any person concerned with the Project or any part of it as a key person. The Consultant shall not without the prior written approval of the Client make any changes in the key personnel referred to in this paragraph.
- 3.2 The Consultant shall take the steps reasonably required by the Client, to prevent unauthorised persons being admitted to the Premises. If the Client gives the Consultant notice that any person is not to be admitted to or is to be removed from the Premises or is not to become involved in or is to be removed from involvement in the Project, the Consultant shall take all reasonable steps to comply with such notice.
- 3.3 The decision of the Client shall be final and conclusive as to whether any person is to be admitted to or is to be removed from the Premises or is not to become involved in or is to be removed from involvement in the Project or as to the designation or approval of key personnel and as to whether the Consultant has furnished the information or taken the steps required of the Consultant by this Condition.
- 3.4 The Consultant shall bear the cost of any notice, instruction or decision of the Client under this Condition.

4. SECURITY AND ACCESS TO THE CLIENT'S PREMISES

- 4.1 Any access to, or occupation of, the Client's premises which the Client may grant the Consultant from time to time is on a non-exclusive licence basis free of charge. The Consultant must use the Client's premises solely for the purpose of performing its obligations under the Contract and must limit access to the Client's premises to such individuals as are necessary for that purpose.
- 4.2 The Consultant must comply with the Client's policies concerning Baseline Personnel Security Standard checks and such modifications to those policies or replacement policies as are notified to the Consultant from time to time.
- 4.3 The Consultant must notify the Client of any matter or other change in circumstances which might adversely affect future Baseline Personnel Security Standard clearance.
- 4.4 At the Client's written request, the Consultant must provide a list of the names and addresses of all persons who may require admission to the Client's premises in connection with the Contract, specifying the capacities in which they are concerned with the Contract and giving such other particulars as the Client may reasonably request.
- 4.5 The Consultant must ensure that any individual Consultant Representative entering the Client's premises has completed the process for obtaining

Baseline Personnel Security Standard clearance. The Consultant acknowledges that the Client has the right to deny entry to any individual that has not completed the process for obtaining Baseline Personnel Security Standard clearance.

- 4.6 In accordance with the Client's policies concerning visitor access, entry to the Client's premises may be granted to individual Consultant Representatives for the purposes of meetings, notwithstanding that the process for obtaining Baseline Personnel Security Standard clearance has not commenced or completed.

- 4.7 The Client may, by notice to the Consultant, refuse to admit onto, or withdraw permission to remain on, the Client's premises any Consultant Representative whose admission or continued presence would, in the opinion of the Client acting reasonably, be undesirable.
- 4.8 The Client must provide advice and assistance acting reasonably to the Consultant to facilitate the Consultant's compliance with this Condition.
- 4.9 All decisions of the Client under this Condition are final and conclusive.
- 4.10 Breach of this Condition by the Consultant is a material breach for the purposes of Condition 14.2 (Termination).
- (a) In this Condition 4 the following terms have the meanings given to them below:
- (b) "Baseline Personnel Security Standard" means the pre-employment controls for all civil servants, members of the Armed Forces, temporary staff and government contractors generally.
- (c) "Consultant Representatives" means all persons engaged by the Consultant in the performance of its obligations under the Contract including:
- its employees and workers (including persons employed by a third party but working for and under the control of the Consultant);
 - its agents, Consultants and carriers; and
 - any sub-contractors of the Consultant (whether approved under Condition 17 (Assignment and sub-contracting) or otherwise).'

5. CHANGE TO CONTRACT REQUIREMENTS

- 5.1 The Client may order any variation to any part of the Services that for any other reason shall in the Client's opinion be desirable. Any such variation may include (but shall not be restricted to) additions, omissions, alterations, substitutions to the Services and changes in quality, form, character, kind, timing, method or sequence of the Services.
- 5.2 Save as otherwise provided herein, no variation of the Services as provided for in Condition 5.1 hereof shall be valid unless given or confirmed in the form of an order given by the Client. All such orders shall be given in writing provided that if for any reason the Client shall find it necessary to give any such order orally in the first instance the Contractor shall comply with such oral order which must be confirmed in writing by the Client within 2 working days of the giving of such oral order by the Client, failing which the variation made by such oral order shall cease to have effect on the expiry of the said 2 working day period.
- 5.3 Where any such variation of the Services made in accordance with Conditions 5.1 and 5.2 has affected or may affect the costs incurred by the Consultant in providing the Services, the Consultant will notify the Client in writing of the effect which it has had or may have on the said costs and such notification shall be considered by the Client, who shall take all of the facts

into account (including such information as may be provided by the Consultant in respect of the effect which such variation has had or may have on the costs incurred by the Consultant in providing the service) and may authorise such alteration to the sums to be paid to the Consultant in accordance with the provisions of the Contract as are, in the Client's opinion, appropriate and reasonable in the circumstances.

6. FEES AND EXPENSES

- 6.1 The Client shall pay to the Consultant fees and expenses at the rate specified in the Purchase Order.
- 6.2 The Consultant shall be entitled to be reimbursed by the Client only for expenses reasonably and properly incurred by the Consultant in the performance of the duties hereunder, subject to production of such evidence thereof as the Client may reasonably require.
- 6.3 Unless otherwise stated in the Contract, payment will be made within 30 days of receipt and agreement of invoices, submitted monthly in arrears, for work completed to the satisfaction of the Client.
- 6.4 Value Added Tax, where applicable, shall be shown separately on all invoices as a strictly net extra charge.
- 6.5 Notwithstanding Condition 17 (Assignment and sub-contracting) of this Contract the Consultant may assign to another person (an "assignee") the right to receive payment of the fees or expenses or any part thereof due to the Consultant under this Contract subject to (i) deduction of sums in respect of which the Client exercises its right of recovery under Condition 16 (Recovery of sums due) of this Contract and (ii) all the related rights of the Client under this Contract in relation to the recovery of sums due but unpaid. The Consultant shall notify or procure that any assignee notifies the Client of any variations to the arrangements for payment of the fees and expenses or for handling invoices, in each case in good time to enable the Client to redirect payments or invoices accordingly. In the absence of such notification the Client shall be under no obligation to vary the Client's arrangements for payment of the fees or expenses or for handling invoices.

7. AUDIT

The Consultant shall keep and maintain until 5 years after the Contract has been completed records to the satisfaction of the Client of all expenditures which are reimbursable by the Client and of the hours worked and costs incurred by the Consultant or in connection with any employees of the Consultant paid for by the Client on a time charge basis. The Consultant shall on request afford the Client or the Client's representatives such access to those records as may be required by the Client in connection with the Contract.

8. CORRUPT GIFTS OR PAYMENTS

The Consultant shall not offer or give or agree to give, to any member, employee or representative of the Client any gift or consideration of any kind as an inducement or reward for doing or refraining from doing, or for having done or refrained from

doing, any act in relation to the obtaining or execution of this or any other contract with the Client or for showing or refraining from showing favour or disfavour to any person in relation to this or any such Contract. The attention of the Consultant is drawn to the criminal offences created by the Bribery Act 2010.

9. INTELLECTUAL PROPERTY RIGHTS

- 9.1 All Intellectual Property Rights in any material including but not limited to reports, guidance, specification, instructions, toolkits, plans, data, drawings, databases, patents, patterns, models, designs which are created or developed by the Consultant on behalf of the Client for use, or intended use, in relation to the performance by the Consultant of its obligations under the Contract are hereby assigned to and shall vest in the Crown absolutely.
- 9.2 Except as may expressly be provided for in the Contract, neither party acquires any interest in or license to use the other party's Intellectual Property Rights owned or developed prior to or independently of the Contract.
- 9.3 The Consultant must not infringe any Intellectual Property Rights of any third party in providing the Services or otherwise performing its obligations under the Contract. The Consultant shall indemnify the Client against all actions, claims, demands, losses, charges, costs and expenses which the Client may suffer or incur as a result of or in connection with any breach of this Condition 9.3.
- 9.4 The provisions of this Condition 9 shall apply during the continuance of this Contract and after its termination howsoever arising.

10. INDEMNITIES AND INSURANCE

- 10.1 The Consultant shall indemnify and keep indemnified the Client, the Crown, its servants and agents against all actions, claims, demands, costs and expenses incurred by or made against the Client or the Crown, its servants or agents in respect of any loss or damage or personal injury (including death) which arises from any advice given or anything done or omitted to be done under this Contract to the extent that such loss, damage or injury is caused by the negligence or other wrongful act of the Consultant, or the Consultant's servants or agents.
- 10.2 The Client shall indemnify the Consultant in respect of all claims, proceedings, actions, damages, fines, costs, expenses or other liabilities which may arise out of, or in consequence of, a breach of the Data Protection Laws where the Consultant has acted in accordance with the Client's written instructions.
- 10.3 The Consultant (if an individual) represents that the Consultant is regarded by both the Inland Revenue and the Department of Social Security as self-employed and accordingly shall indemnify the Client against any tax, national insurance contributions or similar impost for which the Client may be liable in respect of the Consultant by reason of this Contract.

- 10.4 The Consultant shall effect with an insurance company or companies acceptable to the Client a policy or policies of insurance covering all the matters which are the subject of the indemnities and undertakings on the part of the Consultant contained in this Contract in the sum of £1 million at least in respect of any one incident and unlimited in total, unless otherwise agreed by the Client in writing.
- 10.5 If requested, by the Client the Consultant shall produce to the Client the relevant policy or policies together with receipts or other evidence of payment of premiums, including the latest premium due thereunder.

11.DISCRIMINATION

The Consultant must not unlawfully discriminate against any person within the meaning of the Equality Act 2010 in its activities relating to the Contract or any other contract with the Client.

12.BLACKLISTING

The Consultant must not commit any breach of the Employment Relations Act 1999 (Blacklists) Regulations 2010 or section 137 of the Trade Union and Labour Relations (Consolidation) Act 1992, or commit any breach of the Data Protection Act 1998 by unlawfully processing personal data in connection with any blacklisting activities. Breach of this Condition is a material default which shall entitle the Client to terminate the Contract.

13. OFFICIAL SECRETS ACTS, CONFIDENTIALITY AND ACCESS TO GOVERNMENT INFORMATION

- 13.1 The Consultant undertakes to abide and procure that the Consultant's employees abide by the provisions of The Official Secrets Acts 1911 to 1989.
- 13.2 The Consultant shall keep secret and not disclose and shall procure that the Consultant's employees keep secret and do not disclose any information of a confidential nature obtained by the Consultant by reason of this Contract except information which is in the public domain otherwise than by reason of a breach of this provision.
- 13.3 All information related to the Contract with the Consultant will be treated as commercial in confidence by the parties except that:
- (a) The Consultant may disclose any information as required by law or judicial order to be disclosed.
 - (b) The Client may disclose any information as required by law or judicial order to be disclosed. Further, the Client may disclose all information obtained by the Client by virtue of the Contract to the Scottish or United Kingdom Parliament or any other department, office or agency of Her Majesty's Government in Scotland or the United Kingdom, and their servants or agents, when disclosing such information to either the Scottish Parliament or the United Kingdom Parliament. It is recognised and agreed by both parties that the Client shall, if the Client sees fit,

disclose such information but is unable to impose any restrictions upon the information that the Client provides to Members of the Scottish Parliament, (MSPs) or Members of the United Kingdom Parliament (MPs). Such disclosure shall not be treated as a breach of this Contract.

- 13.4 The provisions of this Condition 13 shall apply during the continuance of this Contract and after its termination howsoever arising.

14. TERMINATION

- 14.1 The Consultant shall notify the Client in writing immediately upon the occurrence of any of the following events:
- (a) where the Consultant is an individual and if a petition is presented for the Consultant's bankruptcy or the sequestration of the Consultant's estate or a criminal bankruptcy order is made against the Consultant, or the Consultant makes any composition or arrangement with or for the benefit of creditors, or makes any conveyance or assignation for the benefit of creditors, or if an administrator or trustee is appointed to manage the Consultant's affairs; or
 - (b) where the Consultant is not an individual but is a firm, or a number of persons acting together in any capacity, if any event in (a) or (c) of this Condition occurs in respect of any partner in the firm or any of those persons or a petition is presented for the Consultant to be wound up as an unregistered company; or
 - (c) where the Consultant is a company, if the company passes a resolution for winding-up or the court makes an administration order or a winding-up order, or the company makes a composition or arrangement with its creditors, or an administrator, administrative receiver, receiver or manager is appointed by a creditor or by the court, or possession is taken of any of its property under the terms of a floating charge.
- 14.2 On the occurrence of any of the events described in paragraph 14.1, or if the Consultant shall have committed a material breach of this contract and (if such breach is capable of remedy) shall have failed to remedy such breach within 7 days of being required by the Client in writing to do so, or, where the Consultant is an individual, if the Consultant shall die or be adjudged incapable of managing his or her affairs within the meaning of the Adults with Incapacity (Scotland) Act 2000 or the Mental Health (Care and Treatment) (Scotland) Act 2003, the Client shall be entitled to terminate this Contract by notice to the Consultant with immediate effect.
- 14.3 The Client may terminate the Contract in the event that:
- (a) the Contract has been subject to substantial modification which would have required a new procurement procedure in accordance with regulation 72(9) (modification of contracts during their term) of The Public Contracts (Scotland) Regulations 2015;

- (b) the Consultant has, at the time of contract award, been in one of the situations referred to in regulation 58(1) (exclusion grounds) of The Public Contracts (Scotland) Regulations 2015, including as a result of the application of regulation 58(2) of those regulations, and should therefore have been excluded from the procurement procedure; or
- (c) the Contract should not have been awarded to the Consultant in view of a serious infringement of the obligations under the Treaties and the Directive 2014/24/EU that has been declared by the Court of Justice of the European Union in a procedure under Article 258 of the Treaty on the Functioning of the European Union.

In this Condition, 'the Treaties' has the meaning given in the European Communities Act 1972.

- 14.4 The Client may also terminate the Contract in the event of a failure by the Consultant to comply in the performance of the Contract with legal obligations in the fields of environmental, social and employment law.
- 14.5 In addition to his rights of termination under paragraph 14.2, 14.3 or 14.4, the Client shall be entitled to terminate this Contract by giving to the Consultant not less than 7 days' notice to that effect. In the event of such termination, the Consultant shall, if required to do so by the Client, prepare and submit to the Client a report on the work done prior to the termination and making such recommendations as may be based on the work done prior to termination.
- 14.6 Termination under paragraphs 14.2, 14.3, 14.4 or 14.5 shall not prejudice or affect any right of action or remedy which shall have accrued or shall thereupon accrue to the Client and shall not affect the continued operation of Conditions 7 (Audit), 9 (Intellectual Property Rights) and 13 (Official Secrets Acts, etc.).

15.RETURN OF DOCUMENTS

- 15.1 The Consultant will return to the Client promptly upon the termination of the Contract any document, paper, material or information supplied by or obtained from the Client or any Government Department in connection with the Contract, or extracted from such documents, papers, materials or information.
- 15.2 If the Contract has been terminated pursuant to paragraph 14.5, the Consultant may retain any documents papers, materials or information which shall be required by the Consultant to prepare any report required under that paragraph. Promptly upon submission of the report to the Client, the Consultant will return any documents, papers, materials or information which the Consultant may have retained in terms of this paragraph.

16.RECOVERY OF SUMS DUE

Wherever under this Contract any sum of money is recoverable from or payable by the Consultant, that sum may be deducted from any sum then due or which at any later time may become due, to the Consultant under this Contract or under any

other agreement or contract with the Client or with any department, agency or authority of the Crown.

17.ASSIGNATION AND SUB-CONTRACTING

- 17.1 The Consultant shall not assign or sub-contract any portion of the Contract without the prior written consent of the Client. Sub-contracting any part of the Contract shall not relieve the Consultant of any obligation or duty attributable to the Consultant under the Contract or these Conditions.
- 17.2 Where the Client has consented to the placing of sub-contracts, copies of each sub-contract shall be sent by the Consultant to the Client immediately it is issued.
- 17.3 Where the Consultant enters into a sub-contract must ensure that a provision is included which:
- 17.3.1 requires payment to be made of all sums due by the Consultant to the sub-contractor within a specified period not exceeding 30 days from the receipt of a valid invoice as defined by the sub-contract requirements and provides that, where the Client has made payment to the Client in respect of Services and the sub-contractor's invoice relates to such Services then, to that extent, the invoice must be treated as valid and, provided the Consultant is not exercising a right of retention or set-off in respect of a breach of contract by the sub-contractor or in respect of a sum otherwise due by the sub-contractor to the Consultant, payment must be made to the sub-contractor without deduction;
 - 17.3.2 notifies the sub-contractor that the sub-contract forms part of a larger contract for the benefit of the Client and that should the sub-contractor have any difficulty in securing the timely payment of an invoice, that matter may be referred by the sub-contractor to the Client; and
 - 17.3.3 in the same terms as that set out in this Condition 17.3 (including for the avoidance of doubt this Condition 17.3.3) subject only to modification to refer to the correct designation of the equivalent party as the Consultant and sub-contractor as the case may be.
- 17.4 The Consultant shall also include in every sub-contract:
- 17.4.1 a right for the Consultant to terminate that sub-contract if the relevant sub-contractor fails to comply in the performance of its contract with legal obligations in the fields of environmental, social or employment law or if any of the termination events (involving substantial modification of the Contract, contract award despite the existence of exclusion grounds or a serious infringement of EU legal obligations) specified in condition 14.3 occur; and

- 17.4.2 a requirement that the sub-contractor includes a provision having the same effect as 17.4.1 in any sub-contract which it awards.

In this Condition 17.4, 'sub-contract' means a contract between two or more contractors, at any stage of remoteness from the Client in a sub-contracting chain, made wholly or substantially for the purpose of performing (or contributing to the performance of) the whole or any part of this Contract.

18.PUBLICATION AND DISCLOSURE

- 18.1 Until such time as the final report on the Project has been received and agreed by the Client, the Contractor shall obtain the Client's approval prior to the release or publication of any information arising from the Project.
- 18.2 The Client reserves the right to publish all Progress and Final Reports and any other report or information provided to the Client.
- 18.3 The Contractor shall acknowledge the funds it has received from the Client in any of its publications which are in whole or in part derived from the Project.

19.NOTICES

Any notice given under or pursuant to the Contract may be sent by hand or by post or by registered post or by the recorded delivery service or transmitted by telex, telemessage, facsimile transmission or other means of telecommunication resulting in the receipt of a written communication in permanent form and if so sent or transmitted to the address of the party shown on the Purchase Order, or to such other address as the party may by notice to the other have substituted therefor, shall be deemed effectively given on the day when in the ordinary course of the means of transmission it would first be received by the addressee in normal business hours.

20.STATUS OF CONTRACT

Nothing in the Contract shall have the effect of making the Consultant the servant of the Client or the Crown.

21.COMPLIANCE WITH THE LAW ETC.

In providing the services and otherwise when performing the Contract, the Consultant must comply in all respects with:

- 21.1 all applicable law;
- 21.2 any applicable requirements of regulatory bodies; and
- 21.3 Good Industry Practice.

In this Condition, 'Good Industry Practice' means standards, practices, methods and procedures conforming to legal and regulatory requirements and the degree of skill and care, diligence, prudence and foresight which would reasonably and ordinarily be expected from a skilled and experienced person or body engaged in a similar

type of undertaking as the Contractor under the same or similar circumstances.

22.DISPUTE RESOLUTION

- 22.1 The parties must attempt in good faith to resolve any dispute between them arising out of or in connection with the Contract.
- 22.2 Any dispute or difference arising out of or in connection with the Contract, including any question regarding its existence, validity or termination which cannot be resolved in good faith, shall be determined by the appointment of a single arbitrator to be agreed between the parties, and failing agreement within 14 days after either party has given to the other a written request to concur in the appointment of an arbitrator, by an arbitrator to be appointed by the Scottish Arbitration Centre on the written application of either party. The seat of the arbitration shall be in Scotland. The language used in the arbitral proceedings shall be English.
- 22.3 Any arbitration under 22.2 is subject to the Arbitration (Scotland) Act 2010.

23.HEADINGS

The headings to Conditions shall not affect their interpretation.

24.GOVERNING LAW

These Conditions shall be governed by and construed in accordance with Scots law and the Consultant hereby irrevocably submits to the jurisdiction of the Scottish courts. The submission to such jurisdiction shall not (and shall not be construed so as to) limit the right of the Client to take proceedings against the Consultant in any other court of competent jurisdiction, nor shall the taking of proceedings in any one or more jurisdictions preclude the taking of proceedings in any other jurisdiction, whether concurrently or not.

25. DATA PROTECTION

- 25.1 The Consultant acknowledges that Personal Data described in the scope of the Schedule (Data Protection) will be Processed in connection with the Services under this Contract. For the purposes of any such Processing, Parties agree that the terms of this Condition 25 will apply where the Consultant acts as the Data Processor and the Client acts as the Data Controller.
- 25.2 Both Parties agree to negotiate in good faith any such amendments to this Contract that may be required to ensure that both Parties meet all their obligations under Data Protection Laws. The provisions of this Condition 25 are without prejudice to any obligations and duties imposed directly on the Consultant under the Data Protection Laws and the Consultant hereby agrees to comply with those obligations and duties.
- 25.3 The Consultant will, in conjunction with the Client and in its own right and in respect of the Services, make all necessary preparations to ensure it will be compliant with the Data Protection Laws.

- 25.4 The Consultant will provide the Client with the contact details of its data protection officer or other designated individual with responsibility for data protection and privacy to act as the point of contact for the purpose of observing its obligations under the Data Protection Laws.
- 25.5 The Consultant must:
- 25.5.1 agree and comply with the terms of the data processing provisions set out in the Schedule (Data Protection);
 - 25.5.2 process Personal Data only as necessary in accordance with obligations under the Contract and any written instructions given by the Client (which may be specific or of a general nature), including with regard to transfers of Personal Data outside the European Economic Area unless required to do so by European Union or Member state law or Regulatory Body to which the Consultant is subject; in which case the Consultant must inform the Client of that legal requirement before processing unless prohibited by that law the Personal Data only to the extent, and in such manner as is necessary for the performance of the Consultant's obligations under this Contract or as is required by the Law;
 - 25.5.3 subject to Condition 25.5.2 only process or otherwise transfer any Personal Data in or to any country outside the European Economic Area with the Client's prior written consent;
 - 25.5.4 take all reasonable steps to ensure the reliability and integrity of any Consultant Personnel who have access to the Personal Data and ensure that the Consultant Personnel:
 - (a) are aware of and comply with the Consultant's duties under this Condition;
 - (b) are subject to appropriate confidentiality undertakings with the Consultant or the relevant Sub-contractor;
 - (c) are informed of the confidential nature of the Personal Data and do not publish, disclose or divulge any of the Personal Data to any third party unless directed in writing to do so by the Client or as otherwise permitted by this Contract; and
 - (d) have undergone adequate training in the use, care, protection and handling of Personal Data.
 - 25.5.5 implement appropriate technical and organisational measures including those set out in the Schedule (Data Protection) and in accordance with Article 32 of the GDPR to protect Personal Data against unauthorised or unlawful Processing and against accidental loss, destruction, damage, alteration or disclosure, such measures being appropriate to the harm which might

result from any unauthorised or unlawful Processing accidental loss, destruction or damage to the Personal Data and having regard to the nature of the Personal Data which is to be protected.

- 25.6 The Consultant shall not engage a sub-contractor to carry out Processing in connection with the Services without prior specific or general written authorisation from the Client. In the case of general written authorisation, the Consultant must inform the Client of any intended changes concerning the addition or replacement of any other sub-contractor and give the Client an opportunity to object to such changes.
- 25.7 If the Consultant engages a sub-contractor for carrying out Processing activities on behalf of the Client, the Consultant must ensure that same data protection obligations as set out in this Contract are imposed on the sub-contractor by way of a written and legally binding contract, in particular providing sufficient guarantees to implement appropriate technical and organisational measures. The Consultant shall remain fully liable to the Client for the performance of the sub-contractor's performance of the obligations.
- 25.8 The Consultant must provide to the Client reasonable assistance including by such technical and organisational measures as may be appropriate in complying with Articles 12-23, including any subject access request and/or responding to any enquiry made, or investigation or assessment of processing initiated by the Information Commissioner in respect of the Data as soon as is possible but in any event within 3 business days of receipt of the request or any other period as agreed in writing with the Data Controller from time to time.
- 25.9 Taking into account the nature of the Processing and the information available, the Consultant must assist the Client in complying with the Client's obligations concerning the security of personal data, reporting requirements for data breaches, data protection impact assessments and prior consultations in accordance with Articles 32 to 36 of the GDPR. These obligations include:
- (a) ensuring an appropriate level of protection through technical and organisational measures that take into account the circumstances and purposes of the processing as well as the projected probability and severity of a possible infringement of the law as a result of security vulnerabilities and that enable an immediate detection of relevant infringement events.
 - (b) notifying a Personal Data breach to the Client without undue delay and in any event no later than 24 hours after becoming aware of a Personal Data breach;
 - (c) assisting the Client with communication of a personal data breach to a Data Subject;
 - (d) supporting the Client with preparation of a data protection impact assessment;
 - (e) supporting the Client with regard to prior consultation of the

Supervisory Authority.

- 25.10 At the end of the provision of Services relating to processing the Consultant the Consultant must, on written instruction of the Client, delete or return to the Client all Personal Data and delete existing copies unless EU or Member State law requires storage of the Personal Data.
- 25.11 The Consultant must:
- (a) provide such information as is necessary to enable the Client to satisfy itself of the Consultant's compliance with this Condition 25;
 - (b) allow the Client, its employees, auditors, authorised agents or advisers reasonable access to any relevant premises, during normal business hours, to inspect the procedures, measures and records referred to in this Condition 25 and contribute as is reasonable to those audits and inspections;
 - (c) inform the Client if in its opinion an instruction from the Client infringes any obligation under the Data Protection Laws.
- 25.12 Parties acknowledge that the inspecting party will use reasonable endeavours to carry out any audit or inspection under Condition 25.14 with minimum disruption to the Consultant's day to day business.
- 25.13 The Consultant must maintain written records including in electronic form, of all Processing activities carried out in performance of the Services or otherwise on behalf of the Client containing the information set out in Article 30(2) of the GDPR.
- 25.14 If requested, the Consultant must make such records referred to Condition 25.12 available to the Supervisory Authority on request and co-operate with the Supervisory Authority in the performance of its tasks.

SCHEDULE (Data Protection)

Data Processing provision as required by Article 28(3) GDPR.

This Schedule includes certain details of the Processing of Personal Data in connection with the Services:

Subject matter and duration of the Processing of Personal Data

The subject matter and duration of the Processing of Personal Data are [insert description here].

The nature and purpose of the Processing of Personal Data

[Include description here]

The type of Personal Data to be Processed

[Include list of data types here]

The categories of Data Subject to whom Personal Data relates

[Include categories of data subjects here]

The obligations and rights of the Client

The obligations and rights of the Client as the Data Controller are set out in Condition 25 of the Contract.

SUPPLEMENTARY NOTICE**LATE PAYMENT OF INVOICES**

Consultants to the Scottish Government are requested to address complaints regarding late payment of invoices to, in the first instance, the addressee of the invoice and, in the second instance to the Director of Procurement, Area 3A South, Victoria Quay, Edinburgh EH6 6QQ. Telephone 0131-244-3878. This procedure is suggested as the best practical way of ensuring problems of late payment are resolved, and is not intended to interfere with Consultants' legal rights.

THIS NOTICE DOES NOT FORM PART OF THE CONDITIONS OF CONTRACT

Sharon Phipps

From: ██████████@gov.scot
Sent: 15 January 2019 18:38
To: George Lees; Caroline Carter; ██████████@gov.scot; ██████████@gov.scot
Cc: Cathy Tilbrook; ██████████@gov.scot
Subject: CR/2018/08 - Improve understanding of the use, impact and efficacy of Acoustic Deterrent Devices (ADDs) in aquaculture - ITT docs published

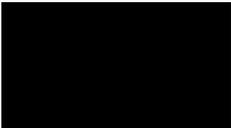
Hi all,

CR/2018/08 - Improve understanding of the use, impact and efficacy of Acoustic Deterrent Devices (ADDs) in aquaculture

Please note that the ITT documents which have now been published on Public Procurement Scotland (PCS) in case you start to get any requests for the SNH internal guidance. The tender deadline is noon on **Tuesday 5 February 2019**.

I would envisage that I will receive any bids by Wednesday 6 February (which I will circulate immediately), with a two week evaluation period. Are these timescales achievable?

With best wishes



Marine Scotland – Marine Planning and Policy
Scottish Government | Area 1A South | Victoria Quay | Edinburgh | EH6 6QQ

Tel: +44 (0)131 244 ██████████
Mob: ██████████
e: ██████████@gov.scot
w: www.gov.scot/Topics/marine

Work pattern: Monday to Thursday

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Tha am post-d seo (agus faidhle neo ceanglan còmhla ris) dhan neach neo luchd-ainmichte a-mhàin. Chan eil e ceadachd a chleachdadh ann an dòigh sam bith, a' toirt a-steach còraichean, foillseachadh neo sgaoileadh, gun chead. Ma 's e is gun d'fhuair sibh seo gun fhiosd', bu choir cur às dhan phost-d agus lethbhreac sam bith air an t-siostam agaibh agus fios a leigeil chun neach a sgaoil am post-d gun dàil. Dh'fhaodadh gum bi teachdaireachd sam bith bho Riaghaltas na h-Alba air a chlàradh neo air a sgrùdadh airson dearbhadh gu bheil an siostam ag obair gu h-èifeachdach neo airson adhbhar laghail eile.

Sharon Phipps

From: [REDACTED]@scottishseafarms.com>
Sent: 25 January 2019 17:19
To: Davies, Sandra; planning.olandi@argyll-bute.gov.uk
Cc: Colin MacFarlane; Andrew Campbell
Subject: Fishnish A planning application (18/02024/MFF) - Submission of revised information on ADD use
Attachments: Appendix E - Revised Sound of Mull ADD Deployment Plan - Jan 2019 v7.pdf; Supporting Information Document - Fishnish A (Revised).pdf

Dear Sandra

Please find attached a revised ADD Deployment Plan for the Sound of Mull and updated Supporting Information Document (Section on Inner Hebrides and Minches SAC) which have been amended in response to the SNH holding objection to this application, and following further discussion with SNH on the use of ADDs.

Please let me know if you require any further information.

Kind regards

[REDACTED]

[REDACTED] | **Scottish Sea Farms Limited**
South Shian, Connel, Argyll, PA37 1SB
Tel +44 (0)1631 [REDACTED] Mobile [REDACTED]



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[Scottish Sea Farms](#)

Appendix E – Sound of Mull ADD Deployment Plan

Version 0.7

Revised January 2019

ADD Deployment Plan for SSF Sound of Mull Farms.

Introduction

Fish farms can attract predatory species including seals and if not managed, seals can cause damage to stocks and equipment, potentially leading to stock escapes, and sufficiently stress farmed stock to affect production. In addition to seeking to limit the loss of stock from both an economic and environmental perspective, Scottish Sea Farms have a fundamental ethical and legal duty of care under the Animal Health and Welfare (Scotland) Act 2006 to protect the health and welfare of farmed stock. Implementation of anti-predator measures are therefore essential to protect farmed stocks.

The Predator Exclusion Plans for all Sound of Mull sites set out a sequential approach to anti-predator measures which take a balanced approach to protection of farmed stocks and minimising effects on non-target wildlife.

SSF acknowledge that the Sound of Mull lies within the Inner Hebrides and Minches SAC designated for its harbour porpoise population and that it is considered a sensitive location in terms of potential indirect and unintentional disturbance of porpoise and other cetaceans from underwater sound generated by ADDs. Once all farms have upgraded to polyethylene nets with improved net tensioning and we can demonstrate that these improvements can limit seal predation to an acceptable level, it is our intention to completely phase out the use of ADDs in the Sound of Mull.

Scope of Deployment Plan

1. The marine farms covered in this ADD Deployment plan are **Scallastle, Fishnish A, Fishnish B, Fiunary, & Bloody Bay.**
2. This ADD Deployment Plan will be followed at the above farms from the stocking of the Fishnish A farm (scheduled April 2019).

Protocol for activating/deactivating ADDs

10. Where losses of salmon through seal predation have been zero for two consecutive days the ADD system must be switched to "Off/Standby".
11. Where losses of salmon through seal predation are confirmed during any deading process then the cascade of actions is ...
 - A. to verify net tensioning (including that all weights of the correct size are in place at every downrope & deadbasket)
 - B. ensure that the sidewall is fully fastened to the top net to prevent any seal accessing the handrail
 - C. step up mortality removal to a minimum of every alternate day (including weekends)
 - D. checking that dead basket seating is correct & the base of the net is holding shape
 - E. ensure ADD functionality (but do not yet make operational)
12. Where losses of salmon through seal predation, (despite following actions 11 A->D) have continued into a 3rd day then the farm should activate ADDs using the 'soft start' feature, following approval from the Farm Support Manager (Step 16).
13. ADDs should be deactivated on-farm when two consecutive days deading have resulted in zero fresh dead through seal predation, or if losses of salmon through seal predation from an individual seal have continued beyond two weeks.
14. Where losses of Atlantic salmon continue through seal predation despite fully functional net design and the use of ADDs, procedures for seal management should be considered as described in the Predator Exclusion Plan.
15. All farms are covered by a regional Seal Management Licence legally permitting seal destruction as a last resort. Such action is only taken if site staff are confident that an identified individual represents a reasonable threat to net integrity or stock welfare. If an individual seal is culled then ADDs are switched off and the procedure starts again.
16. In exceptional circumstances where multiple seals can be identified as predated a farm, ADDs may be reactivated with approval of the Farm Support Manager in consultation with SNH, within 24 hours (at Point 13) where losses of salmon through seal predation have continued despite the cull of an individual seal; or if seal related fish mortality increases immediately after deactivation.

Minimising simultaneous use of ADDs at multiple farm sites

17. Where the need to activate ADDs at an individual farm has been identified (Steps 11 & 12) the Site Manager must gain permission from the Farm Support Manager. This is to ensure that the simultaneous use of ADDs at multiple sites is managed in order to reduce potential for cumulative indirect and unintended disturbance to non-target wildlife.

18. From June 2019 onwards, the Farm Support Manager can only approve the activation of ADDs at either:

- a. One single site within the Sound of Mull at any one time; OR
- b. At both Fiunary and Scallastle sites at the same time.

Monitoring ADD use and record keeping

19. Farms above will maintain a record form: "ADD Inspection, Clean/Maintenance Record" in their Marine Folder: 10.

20. Farms above will maintain a daily Log monitoring seal interaction and ADD usage. This record is called "Daily sheet/ADD Record Sheet." It is a farm manager's responsibility that this form is completed daily. Forms are filed in folder 20 section 1.

21. The daily farm logs will be made available to Argyll and Bute Council and SNH on request.

Daily Seal /ADD record sheet							issue date:		
Date	Seals number seen, SPECIES	Seal Activity Behaviour, how near cages	Net interaction none, abrasion, damage, holes - state what	Fish behaviour stress, feeding, swim pattern	Fish interaction seal damaged mortalities (no)	ADDs Model in Use	ADDs In use continuously, night time only, not at all?	ADD Management Weekly/Monthly Inspection/ Test/ Maintenance	Sign Off Farm staff undertaking Inspection/ Test/ Maintenance
-Nov-18									
1-Nov-18									
1-Nov-18									
1-Nov-18									
1-Nov-18									
1-Nov-18									
1-Nov-18									
1-Nov-18									
1-Nov-18									
0-Nov-18									
1-Nov-18									
2-Nov-18									
3-Nov-18									
4-Nov-18									
5-Nov-18									

22. The ADD manual will be available to all via SSF SharePoint.

23. Farms will record any salmon losses as a consequence of seal predation as "Seal" in the SSF Fish Talk database. Where salmon are required to be culled as a consequence of seal predation these too are to be recorded under the title of "Seal" and added to the SSF Fish Talk database.

24. Farm managers should be able to demonstrate seal predation losses of salmon through running a Fish Talk graphic (for example as below).

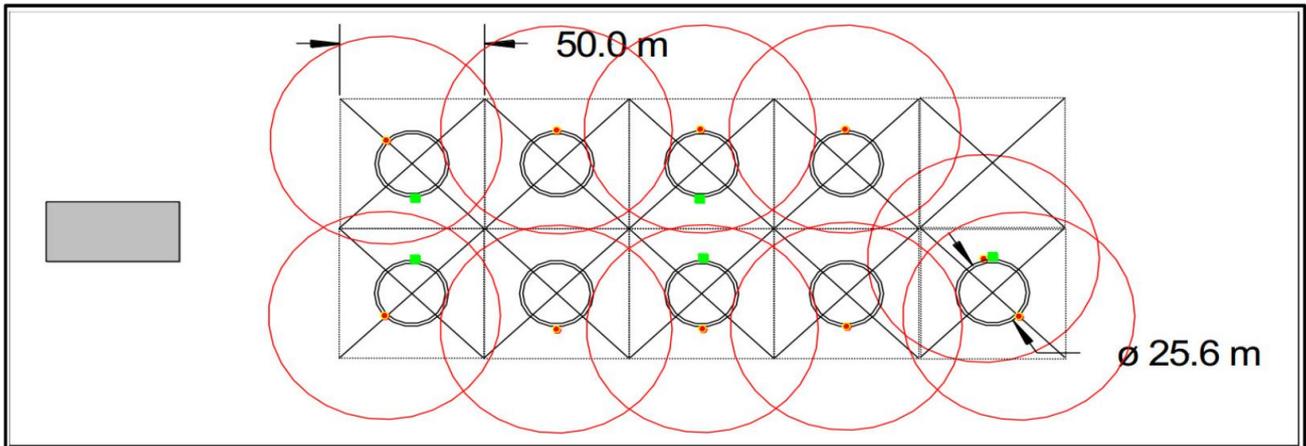
Appendix 1 - Acoustic Deterrent Device Specification

- Sound of Mull sites are fitted with either Airmar DB+II device or the Sea Guard Seal Deterrent device. Both operate at 10kHz with an indicative source level of 197 dB and are considered to be effective up to 40m in all directions.
- The Airmar DB+II can drive a maximum of four projectors and the SeaGuard 6-Channel Seal Deterrent a maximum of six projectors. All controllers (2, 4 & 6) fire one projector at a time.
- The duty cycle of the Airmar DB+II is 2.8 seconds firing pulse, followed by a gap of 3 seconds.
- The SeaGuard 6-Channel Seal Deterrent is programmable with a random projector firing order, with variable firing durations between 0.5 seconds and 2.8 seconds. There is a 0.5 second gap between the end of one firing pulse and the beginning of the next.
- All products have a soft start feature which is intended to warn other marine mammals in the area that the system is starting up.

Appendix 2: Deployment Specification for all Sound of Mull Farms

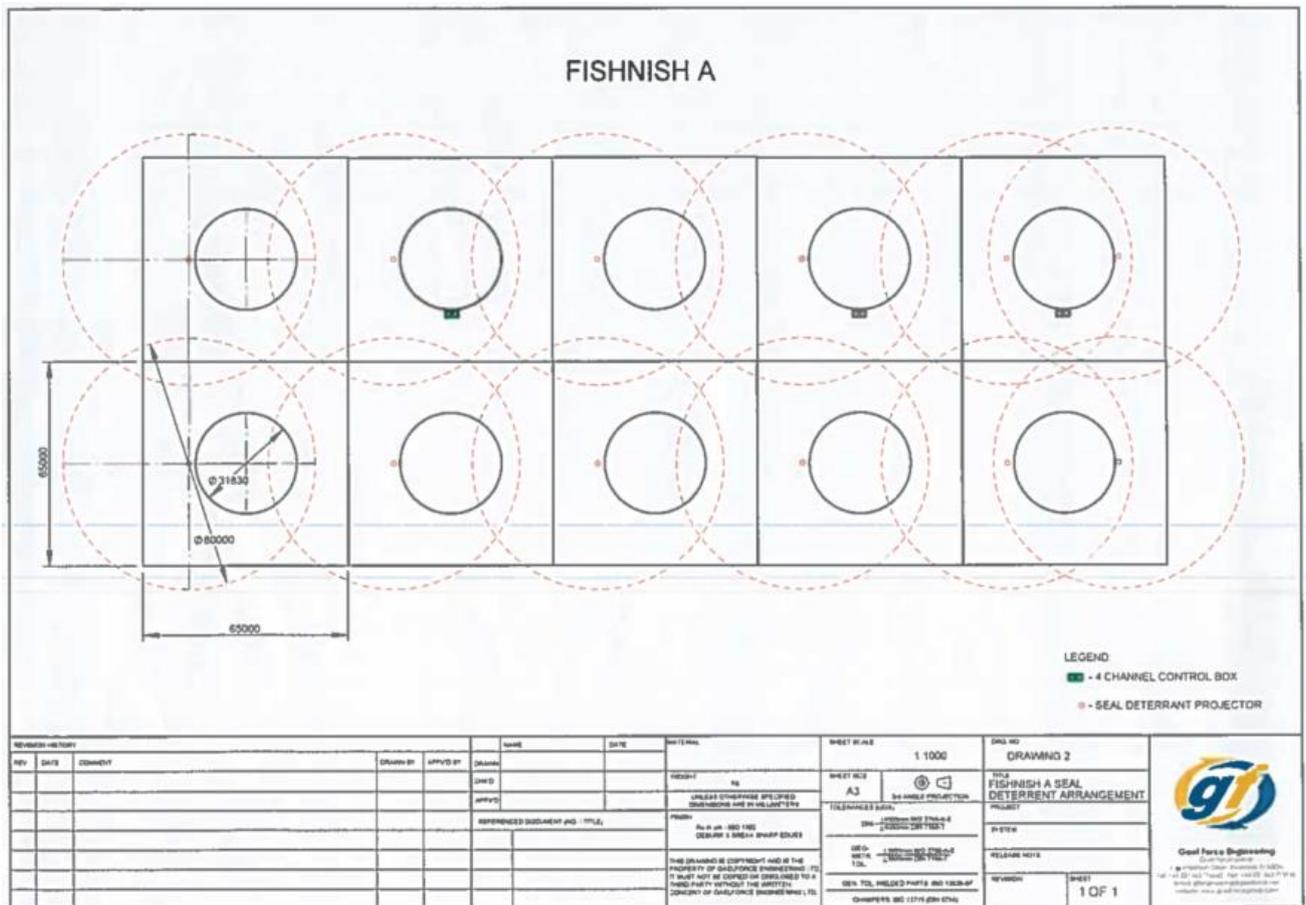
Diagram of each site with position and number of ADD projectors

BLOODY BAY

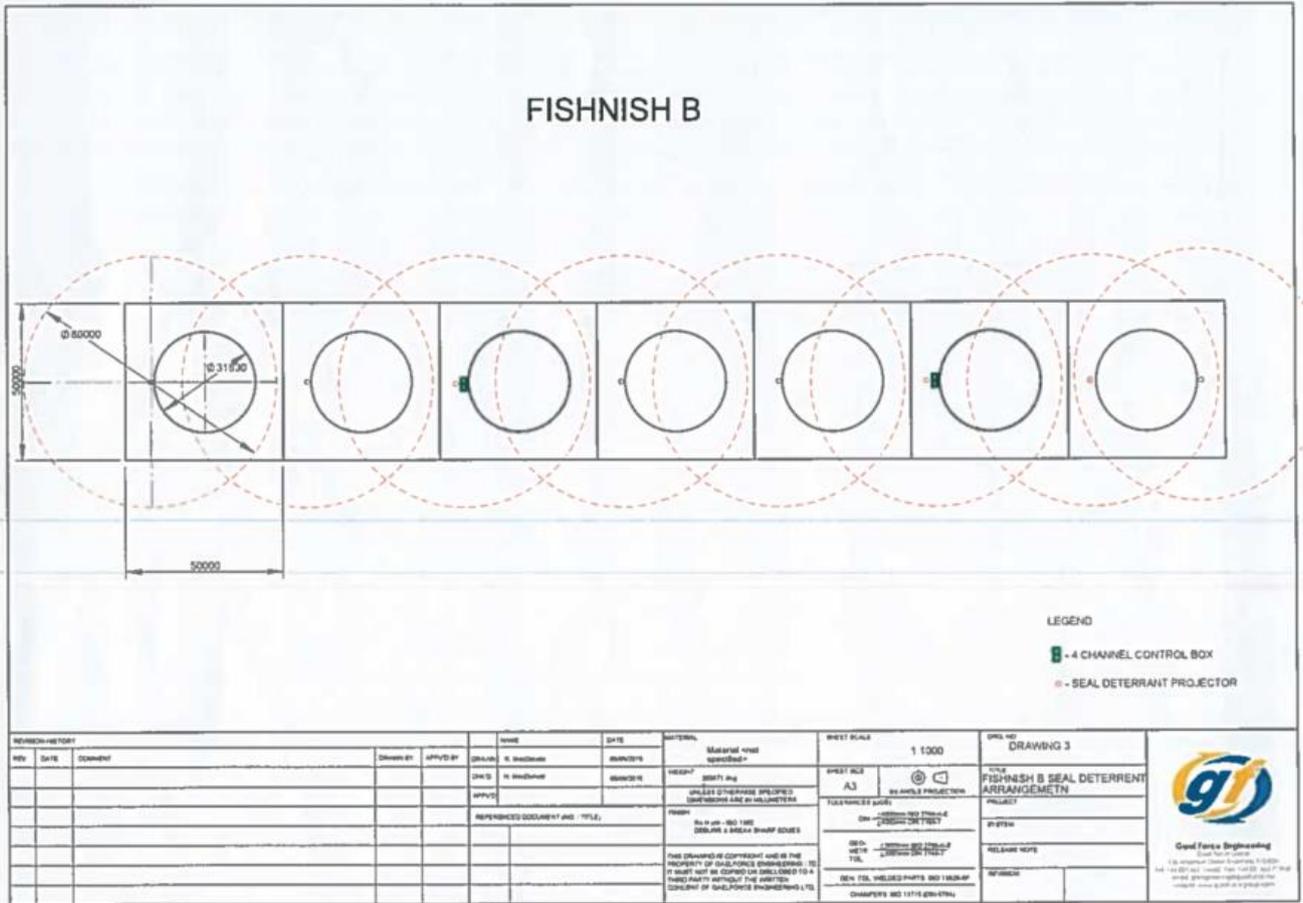


10 SeaGuard Sea Deterrent projectors using 2-channel control boxes. Note – ADDs have not yet been installed at this farm.

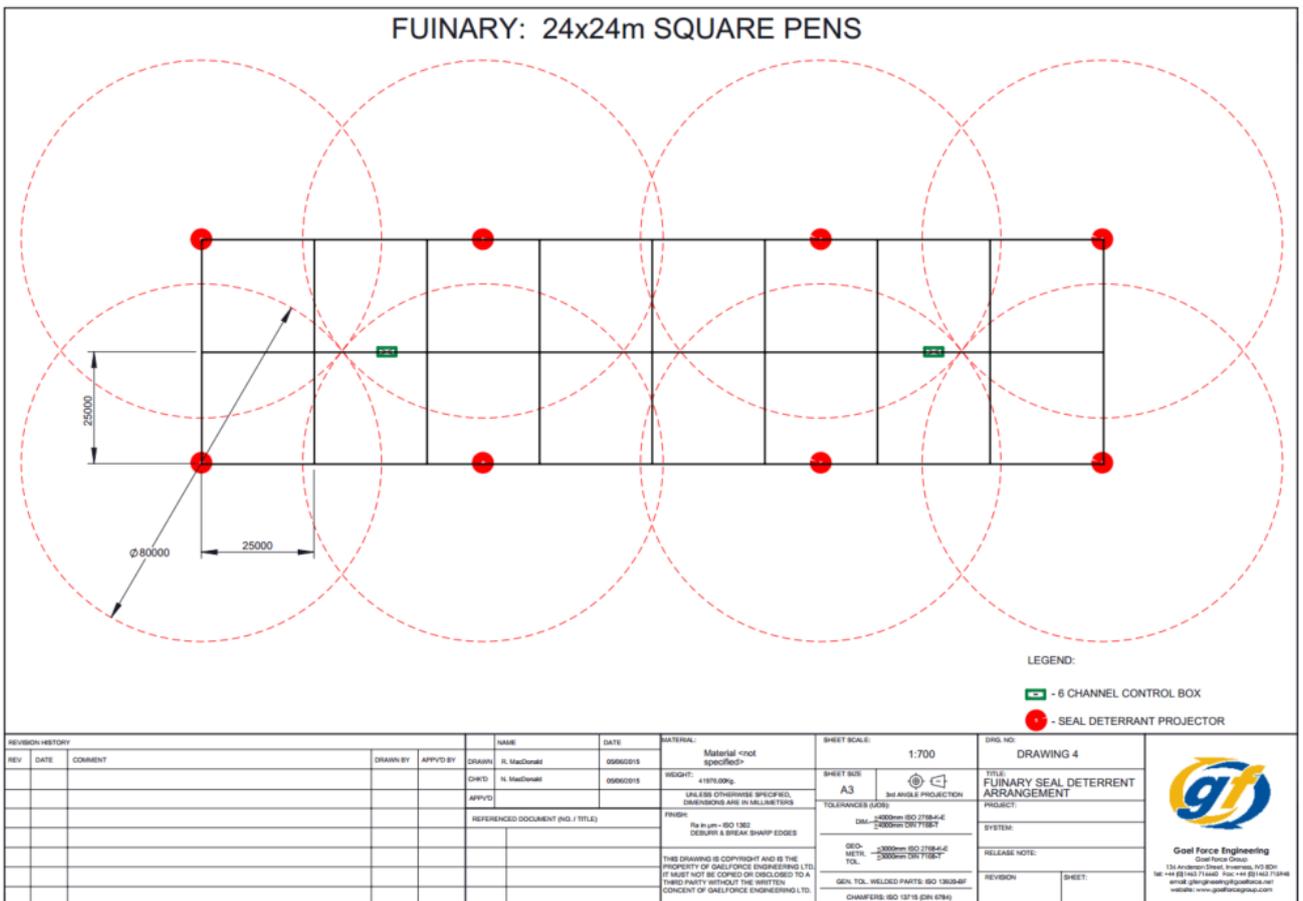
FISHNISH A



12 Airmar DB+II projectors using 4-channel control boxes

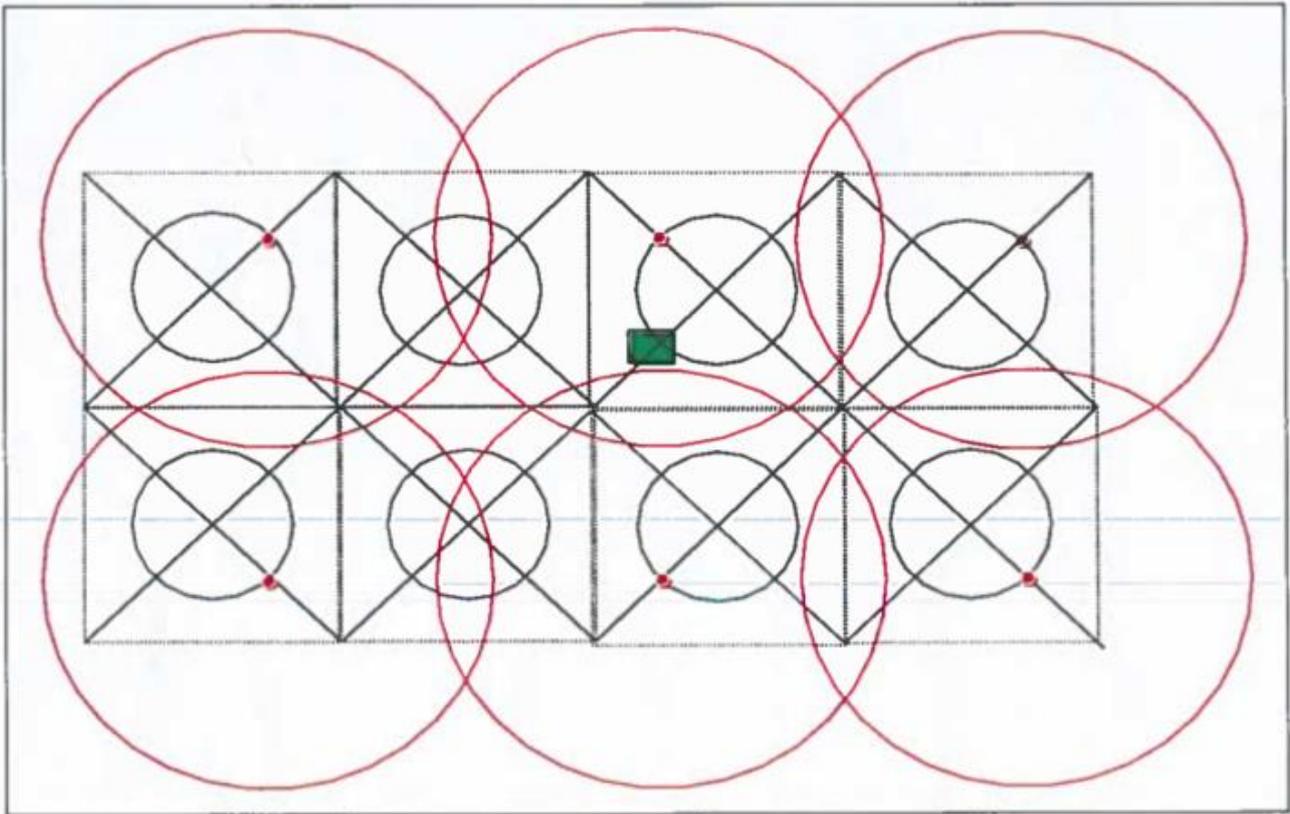


8 Airmar DB+II projectors using 4-channel control boxes



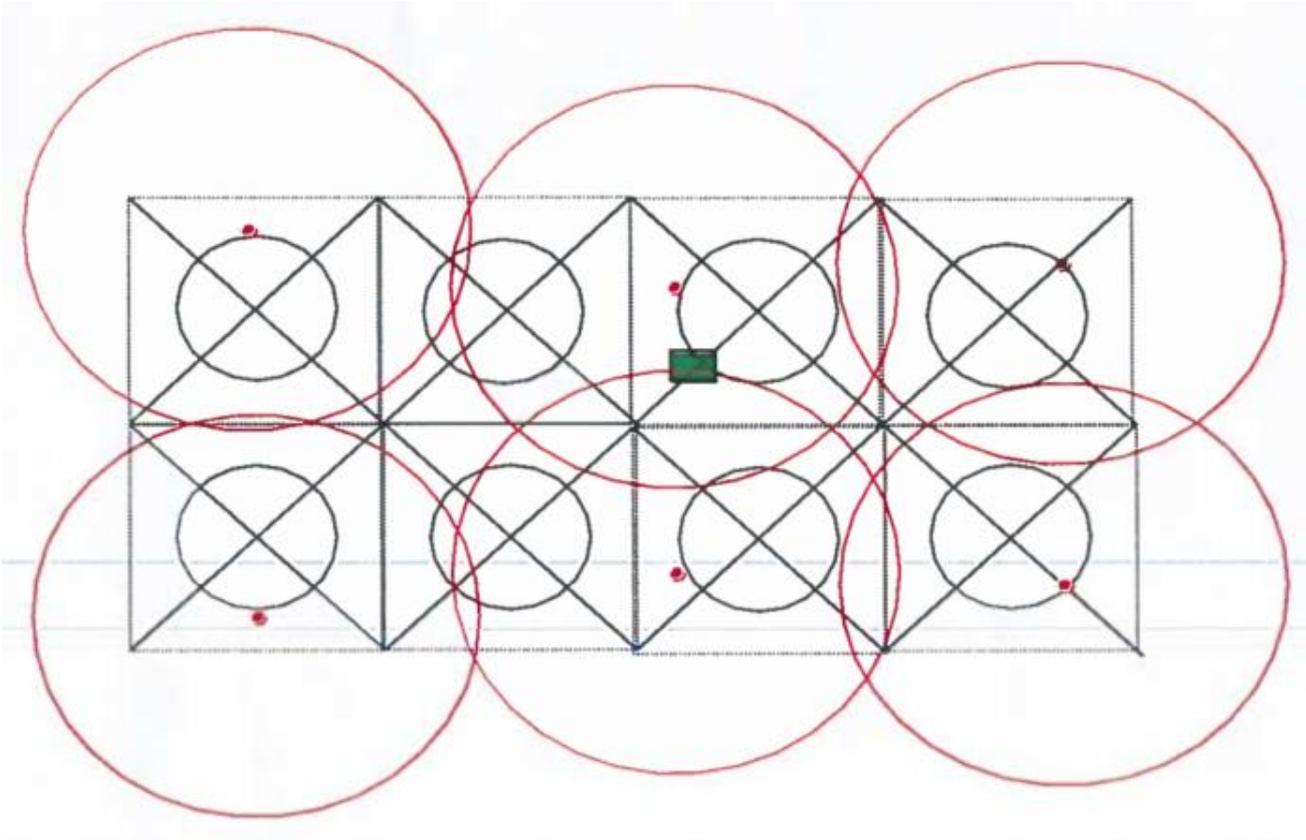
8 Airmar DB+II projectors using 4-channel control boxes

SCALLASTLE (EAST CAGE GROUP)



6 SeaGuard Seal Deterrent projectors using SeaGuard 6-channel control box

SCALLASTLE (WEST CAGE GROUP)



6 SeaGuard Seal Deterrent projectors using SeaGuard 6-channel control box

Supporting Information Document – Fishnish A application

1. Development proposal

Scottish Sea Farms propose to change cage equipment at the existing Fishnish A farm in the Sound of Mull. The proposed modification is seeking to replace existing steel square cages with modern circular cages while maintaining the same level of production. With the proposed change in cages SSF propose to invest in new stronger cage nets which will reduce the potential for seal predation and the risk of escapes.

It is proposed to replace 12 no. x 24m x 24m square cages with 10 no. x 100 m circumference cages in a 65 m grid and to retain the existing feed barge, as detailed in Table 1. Only nine of the cages would be stocked at any one time, with the tenth kept free to enable rotational stock movement which will permit use of non-medicinal treatments for sea lice (e.g. Thermolicer).

Table 1: Existing and proposed site equipment and area

	Existing	Proposed
Cages	12 x 24m x 24m sq	10 x 100m circles in a 65m grid
Wrasse cage	1 x 40m circle	None
Barge	7 x 14.9m Height above water – 4m when fully laden	No change
Total surface area	8084m ²	8062m ²
Moorings area	143092m ²	214700m ²

Equipment attestations have been provided which confirms that the proposed specification of equipment (**Appendices M-O**) has been carefully identified by suitably qualified personnel and are appropriate for the site-specific conditions expected at the proposed site in the Sound of Mull, Argyll.

2. Site servicing and operation

The site will be serviced from the existing shore base located at Fishnish (NM 65632 422980). Operational activities typically occur between the hours of 08:00 and 17:00 but may occasionally be carried out outside these hours. All harvesting and stocking will be carried out by wellboat. There will be no noticeable change in servicing and operational activities from the current situation.

Cage net specification

Top nets are made of 3mm knotless nylon, have a mesh size ranging from 25 to 50mm, and a height of 2.5 metres above the water level. Cage nets are made of knotted polyethylene with a mesh size of 20mm and a cage net depth of 15 metres. Full net specification is provided in **Attachments H and I**.

Disposal and removal of mortalities

Cage nets will be checked daily by underwater camera for mortalities and removed by diver a minimum of weekly, but more often if required depending on mortality level as per Section 6.4 in **Appendix J** (Veterinary Health and Welfare Plan).

All mortalities are collected at the site and secured in specific mort tubs with lids. These are then transferred by boat to the shorebase where the incinerator is located. Ash resulting from the incineration is legally disposed of in general waste.

Only under special circumstances or when the disposal method explained above is not functioning correctly mortalities will be placed in sealed skips that will then be moved to licenced landfill or anaerobic digester plant by a local transport company.

3. SEPA CAR licence

The existing site is consented under CAR licence (CAR/L/1003943). The proposed changes in cage size and layout will require a technical variation to this licence which was submitted to SEPA on 29th August 2018. No increase to the existing biomass (975 tonnes) has been requested. **Appendix B** identifies the appropriate biomass and Infeed treatment chemical limits for the new cage configuration.

4. Production information

Maximum stocked biomass will remain the same as the existing SEPA consent at 975 tonnes, as will the maximum production biomass per cycle at 1,423 tonnes. The maximum stocking density will decrease from the current 9.4kg/m³ to 8.2kg/m³.

The fallow period will be a minimum of two months, with a minimum 4 weeks synchronous fallowing across all farms in the M35 Farm Management Area.

5. Benthic impact

The proposed modification of the Fishnish A farm does not involve an increase in maximum biomass but will result in production being spread over a larger cage area. The effects on seabed habitats and species from the deposition of waste feed, faeces and medicinal residues is considered by SEPA under the CAR regime.

AUTODEPOMOD Modelling has been carried out in order to identify appropriate biomass and infeed treatment chemical limits for this new cage configuration (**Appendix B**). Due to high current velocities and in particular the high bed velocities, 100% of released material is predicted to be exported from the model grid, and therefore no depositional footprint has been identified. Despite the residual currents being to the ESE it is highly likely given the high bed current velocities that exported material will be transported from Fishnish Bay where it will be dispersed by the stronger currents within the Sound of Mull.

Overall, the Modelling Summary Report (**Appendix B**) identifies that the proposed reconfiguration of cages at Fishnish A will adhere to the required SEPA environmental standards, with no change to the amount of licensed medicinal treatments and no significant change in predicted benthic impact due to no net increase in biomass.

A video transect survey was undertaken in June 2018 and focussed on agreed transects with SEPA and SNH to cover the extended areas of the proposed cage group and predicted depositional footprint. Substrate along the whole of Transects 1 and 2 consisted of muddy sand, with water depths varying from 40.4-50.3m. Transect 3 covered a greater bathymetric range, 23.7-51.6m, with sediments grading from fine sand/shell at shallower depths to muddy sand at depths greater than 30m. Muddy sediments throughout the deeper parts of the survey area (greater than 40m) were burrowed by *Nephrops norvegicus* and *Calocaris macandreae* (not observed but inferred from burrow characteristics). This latter habitat is considered to represent the Priority Marine Feature 'Burrowed mud', however seapens and other key component species were not present - *Maxmuelleria lankesteri*, *Funiculina quadrangularis* and *Pachycerianthus multiplicatus*). A full description of the seabed habitat and species recorded is reported in **Appendix C**.

According to FEAST, the Priority Marine Feature 'burrowed mud' is considered to be of medium sensitivity to organic enrichment; medium sensitivity to levels of siltation in the range 5-30cm; low sensitivity to levels of

siltation <5cm; and sensitive to chemicals. The tall sea pen *Funiculina* is considered to be less tolerant than other burrowed mud component species but was not recorded during the visual seabed survey.

Conclusion

There will be some change in dispersion of effluent from the cages as a result of the greater cage volume, increased spacing between cages and decreased stocking density. It is anticipated that this change will be beneficial, resulting in increased dispersion and hence reduced intensity of benthic impact in the immediate vicinity of the site. The Priority Marine Feature 'Burrowed Mud' is present in deeper parts of the surrounding seabed but does not represent some of the rarer or more sensitive 'Burrowed mud' biotopes. The overall extent of burrowed mud habitat that might be affected is small in comparison to its wide distribution within both inshore and offshore waters. Consequently, it is considered unlikely that the proposed development would have a significant impact on the national status of this Priority Marine Feature.

6. Water column impact

There will be no net increase in biomass at Fishnish A or increase in licenced use of medicinal treatments, as outlined in **Appendix B**. It is therefore concluded that there is no risk of additional impacts on the water column from nutrient enhancement or medicinal treatments from the proposed site reconfiguration.

7. Wild Migratory Salmonids

The equipment changes proposed at Fishnish A do not involve an increase in biomass and therefore there is considered to be no increased risk to wild migratory salmonids.

Containment

The proposal is to upgrade farm equipment from square steel cages to stronger plastic circular cages. The existing site uses nylon cage nets and it is proposed to upgrade these nets with significantly stronger polyethylene nets with increased net tensioning using sinker tubes. These equipment changes will reduce the risk of escapes and in terms of daily operations, the same management practices will apply to the amended site as apply to the current site, as detailed in the **Appendix F** and **Appendix G**.

Site specific attestations have been provided from equipment manufacturers that confirm equipment is suitable for the conditions expected at the site and will meet the design requirements specified by The Technical Standard for Scottish Finfish Aquaculture (**Appendices M-O**).

Sea lice management

There will be no increase in biomass at Fishnish A or change in the availability of medicinal treatments licenced by SEPA. **Appendix B (Modelling Summary Report)** and **Appendix H (Sea Lice Efficacy Statement)** demonstrate that the farm will continue to have access to quantities of in-feed and bath treatments that will allow efficacious treatment of sea lice at all stages of the production cycle. Fishnish A is an existing site where no increase to Slice has been applied for therefore, as per the Framework for the application of SEPA's interim position on the use of emamectin benzoate in finfish farms (Version 2 18 October 2017), the Interim Position Statement does not apply in this case.

The existing Fishnish A farm has a good record of lice control in line with other farms in the Farm Management Area M35. This is reflected in the Marine Scotland screening response to this proposal. The sea lice management strategies that apply to the existing Fishnish A site will not change following a change in cage equipment. The following documents set out the preventative and reactive measures that will be taken to control and treat sea lice at Fishnish A and Farm Management Area M35:

- **Sound of Mull Sea Lice Strategy (Appendix I)**

- **Fishnish A Veterinary Health & Welfare Plan (Appendix J)**
- **SSF Sound of Mull Farm Management Statement (Appendix K)**

Overall the proposal to reconfigure this site is considered unlikely to be detrimental to the effective control and treatment of sea lice in the FMA.

8. Predator interactions

The proposed equipment changes to the existing Fishnish A site are not considered likely to increase the risk to predatory wildlife from disturbance or entanglement. Cage top nets will be supported by the 'hamster wheel' structure and net mesh will be 50mm as on existing top nets. Cage nets will be upgraded to stronger polyethylene with increased net tensioning which will reduce the potential for entanglement of diving birds and seals and seal predation.

9. Landscape

The landscape implications of the Fishnish A proposal are considered in **Appendix A (Fishnish A and B Landscape and Visual Appraisal)**.

10. Other marine activities and socio-economic considerations

The main activity which is known to occur in the vicinity of the existing Fishnish A farm is prawn creel fishing. Fisheries information in the Sound of Mull Marine Plan and observations from farm staff suggested that the south eastern end of Fishnish bay was good prawn ground exploited by local creel fishermen. As such, the proposed expansion of this Fishnish A farm was focussed as far as possible to the North West and North East of the farm away from the bay to try and limit any overlap with fishing activity, while maintaining access to the existing anchorage.

The West Coast Regional Inshore Fisheries Group (WCRIFG) were consulted in March 2018 and some initial concerns were raised that the proposed expansion could encroach further into the bay and thus impact on prawn fishing grounds. As a result, members who responded did not wish to see any further development into the bay because of the loss of fishing grounds with one member suggesting that it would be better if the expansion took place in the north of the site.

A chart showing the existing and proposed extent of the farms moorings area was forwarded to the WCRIFG to confirm the change in farm footprint. This chart presented as Figure 1 below, shows that the proposed moorings would not extend any further into the bay in a South Westerly or South Easterly direction, but would extend beyond the existing moorings to the North West (130 metres) and North East (65 metres). The most easterly corner of the proposed moorings area will extend slightly closer towards Fishnish Point in an easterly direction by around 50 metres.

The WCRIFG reconsulted its members and confirmed that based on chart provided, concerns of the RIFG members who raised them had been cleared up and that they were now satisfied with the proposals. SSF therefore consider that the proposed reconfiguration of the Fishnish A farm is unlikely to significantly affect local fishing interests.

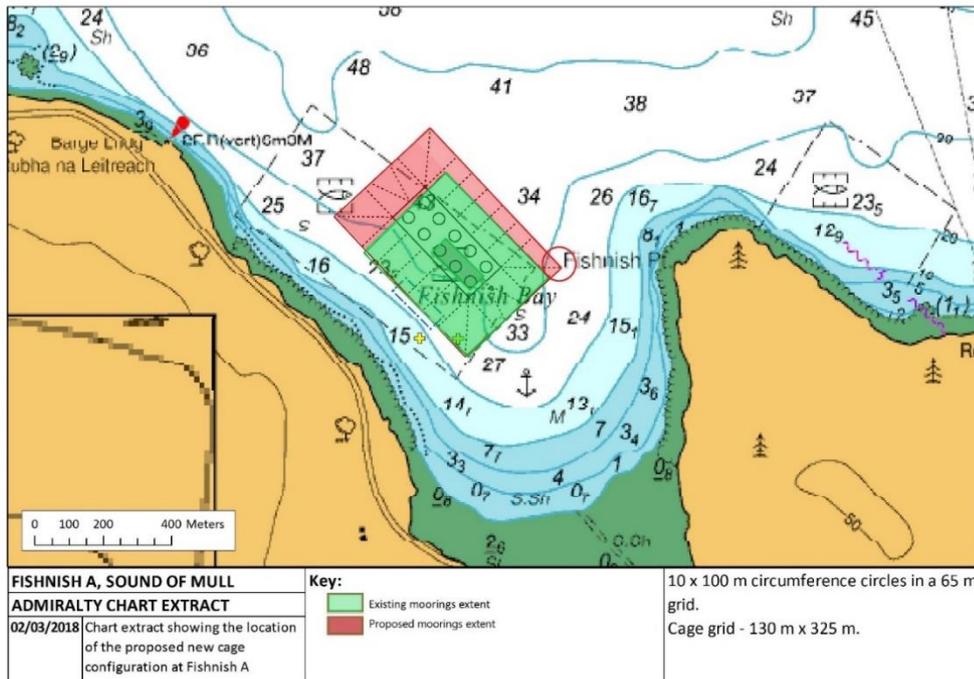


Figure 1 – Mooring extent of existing and proposed Fishnish A farm

The farm will be marked as advised by the Northern Lighthouse Board. The extension of the farm cage group and moorings is in a north westerly direction which does not conflict with the existing anchorage in Fishnish Bay and results in a minimal movement towards the central channel of the Sound of Mull of just 65 metres. The proposed changes are therefore considered unlikely to significantly affect safe navigation and recreational boating interests.

The proposed site configuration will ensure long term job security within the local community, maintaining the current levels of employment across the existing farm at Fishnish A.

11. Protected sites, habitats and species

Mingarry Burn Special Area of Conservation (SAC)

At the EIA screening stage SNH identified that the freshwater pearl mussel interest of the Mingarry Burn SAC should be considered as part of the determination of this development proposal given that it is within a 35km radius of the SAC. The seaward entrance of this SAC is approximately 31km (by sea) from the Fishnish A farm. Migratory salmonids such as salmon and sea trout play a vital part in the life cycle of fresh water pearl mussels and Mingarry Burn SAC is reliant on both juvenile salmon and trout (sea trout).

To inform the Habitats Regulations Appraisal (HRA) process that will need to be undertaken by Argyll and Bute Council the following concerns identified by SNH, which are relevant to potential interactions between fish farming and fresh water pearl mussels, are considered further:

- Impact from farm escapes
- Impact on increased lice burdens upon wild salmonid populations

The planning proposal being considered is for a change in cage equipment at the existing Fishnish A farm, with no change in maximum biomass, and therefore level of production. **What is relevant to this assessment is therefore the changes to the farm and their likely consequences, rather than consideration of the entire farm and its current interaction with wild salmonids which has already been assessed under its existing planning permission.**

Impact from farm escapes

The proposal is to upgrade farm equipment from square steel cages to stronger plastic circular cages. The existing site uses nylon cage nets and it is proposed to upgrade these nets with significantly stronger polyethylene nets with increased net tensioning using sinker tubes. These equipment changes will reduce the risk of escapes from net damage, seal predation and storm events. In terms of daily operations, the same management practices will apply to the amended site as apply to the current site, as detailed in **Appendix F (Containment Plan)** and **Appendix G (Escapes Prevention Plan)**.

It is concluded that there is no increased risk to wild salmonids from farm escapes as a result of proposed changes at Fishnish A.

Impact on increased lice burdens upon wild salmonid populations

The existing Fishnish A farm has a good record of lice control in line with other farms in the Farm Management Area M35. This is reflected in the Marine Scotland screening response to this proposal. The sea lice management strategies that apply to the existing Fishnish A site will not change following a change in cage equipment. These are outlined in the following documents which are reviewed during the fallow period between production cycles and updated/amended as required:

- **SSF Sound of Mull Sea Lice Strategy (Appendix I)**
- **Fishnish A Veterinary Health & Welfare Plan (Appendix J)**
- **SSF Sound of Mull Farm Management Statement (Appendix K)**

There will be no increase in biomass at Fishnish A or change in the availability of medicinal treatments licenced by SEPA. The **Modelling Summary Report (Appendix B)** and **Sea Lice Efficacy Statement (Appendix H)** demonstrate that the farm will continue to have access to quantities of in-feed and bath treatments that will allow efficacious treatment of sea lice at all stages of the production cycle. Fishnish A is an existing site where no increase to Slice has been applied for therefore, as per the Framework for the application of SEPA's interim position on the use of emamectin benzoate in finfish farms (Version 2 18 October 2017), the Interim Position Statement does not apply in this case.

It is concluded that there is no increased risk to wild salmonids from farm derived sea lice as a result of proposed changes at Fishnish A.

Habitats Regulations Appraisal (HRA)

The approach to HRA follows a three-stage process as detailed in SNH guidance (SNH, 2010). Our conclusions on this appraisal are set out below.

- **Stage 1:** *Is the proposal directly connected with or necessary to the conservation management of a Natura site?*
- **Stage 2:** *Is the proposal likely to have a significant effect (LSE) on the qualifying features of a Natura site either alone or in-combination with other plans or projects?*
- **Stage 3:** *Can it be ascertained that the proposal will not adversely affect the integrity of a Natura site?*

Stage 1 - The proposal is not directly connected with or necessary to site management for the conservation of the SACs and therefore consideration of Stage 2 is required.

Stage 2 - While there is potential connectivity between the location of the farm and wild salmonids which are a key part of the SAC features lifecycle, there is no increased risk to wild salmonids as a result of the changes proposed. It is therefore concluded that the proposal is not likely to have a significant effect on the qualifying features of Mingarry Burn SAC, either alone or in-combination with other plans and projects. Consideration of Stage 3 is therefore not required.

Loch Sunart to Sound of Jura Nature Conservation Marine Protected Area

The Fishnish A farm lies within the Loch Sunart to the Sound of Jura Nature Conservation Marine Protected Area, selected for its common skate and Quaternary of Scotland glaciated channels and troughs. At the EIA screening stage SNH advised that the proposals potential direct and indirect impacts upon the Common Skate interests of the MPA should be assessed.

The SNH Management Options paper for this MPA states that juvenile and adult skate are unlikely to be affected by finfish farming but that skate eggs are considered to have a medium sensitivity to fish farm pressures such as siltation and surface abrasion from moorings. SNH have previously advised (in response to other fish farm applications) that proposals could theoretically result in reduced availability of prey species, particularly crustaceans in a relatively localised area of a farm.

The following potential direct and indirect effects have been considered:

- Direct impact on potential skate eggs
- Indirect impact on availability of prey species

Skate eggs

Although little is known about the breeding habits of common skate it is believed that their eggs are laid on shallow rocky reefs. Both the cage group and moorings extent of the proposed reconfiguration of the existing Fishnish A farm is located over substrates ranging from fine sand/shell to muddy sand, and do not overlap with shallow rocky reef habitat. Deposition from the farm is likely to result in a low level of enrichment directly below the cage group, where rocky reef habitat has not been identified. Wider export of material as predicted by the modelling report is likely to result in low levels of seabed deposition which are unlikely to degrade potential egg laying habitat. Given the low potential for interaction with potential egg laying habitat and the likely wider extent of such habitat within the MPA, effects from deposition and mooring abrasion is considered unlikely to be significant.

Availability of prey species

The **Modelling Summary Report (Appendix B)** identifies that the proposed reconfiguration of cages at Fishnish A will adhere to the required SEPA environmental standards, with no change to the amount of licensed medicinal treatments and no significant change in predicted benthic impact, due to no net increase in biomass. Localised enrichment is likely to be restricted to directly below the cages given the dispersive nature of the farm location and predicted export of material away from the farm. Wider export of material as predicted by the modelling report is likely to result in low levels of seabed deposition which are unlikely to significantly affect prey species.

Overall, we do not consider that the proposal to configure the Fishnish A farm is capable of affecting, other than insignificantly, the common skate protected feature of the Loch Sunart to the Sound of Jura MPA.

Inner Hebrides and Minches Special Area of Conservation (SAC)

SNH advice

The Fishnish A and B farms are located within the Sound of Mull which is part of the Inner Hebrides and the Minches candidate SAC, selected for its harbour porpoise interest. SNH advice at the EIA screening stage identified that harbour porpoise is frequently recorded in the Sound of Mull and that based on experience with other similar fish farm proposals the development could have a 'likely significant effect' upon the common porpoise interest of the SAC, and therefore it is likely that this development will be subject to an 'Appropriate Assessment'.

SNH advise that the sensitivity of harbour porpoise to the development is in relation to any proposed use of Acoustic Deterrent Devices (ADDs) which may have the potential to disturb this species and other cetaceans. Any mitigation proposed should consider the implications of the proposal in terms of the individual site and cumulatively in respect of all sites in the Sound of Mull.

Seal predation and existing use of ADDs

High densities of fish at fish farms can attract predatory species including seals. If not managed, seals can cause damage to stocks and equipment, potentially leading to stock escapes, and sufficiently stress farmed stock to affect production. In addition to seeking to limit the loss of stock from both an economic and environmental perspective, Scottish Sea Farms have a legal duty of care to protect the health and welfare of farmed stock. Implementation of anti-predator measures are therefore essential to protect farmed stocks.

The Predator Exclusion Plans (**Appendix D**) for all Sound of Mull sites set out a sequential approach to anti-predator measures which takes a balanced approach to protection of farmed stocks and minimising effects on non-target wildlife. While high quality tensioned cage nets are the first line of defence against seal predation, ADD use is an important secondary deterrent for seals, in the event that tensioned netting does not deter seal predation.

All five farms in the Sound of Mull have experienced seal predation at different times and Table 2 highlights the numbers of fish mortalities attributed to seal predation for sites in 2018, for all farms other than Bloody Bay. It is important to note that fish can also be stressed and stop feeding as a result of seal predation which is not demonstrated here. Data from 2017 has been provided for Bloody Bay as this site has been fallow so far in 2018.

Table 2: Number of fish mortalities attributed to seal predation

Site	Timescale	Seal related mortality
Bloody Bay	2017	4,252
Fishnish A	2018 (Jan-Aug)	217
Fishnish B	2018 (Jan-Aug)	128
Fiunary	2018 (Jan-Aug)	1,116
Scallastle	2018 (Jan- Aug)	2180

In line with existing planning permissions listed in Table 3 the Sound of Mull farms have used ADDs intermittently at all farms other than Bloody Bay.

Table 3: Planning permissions and ADD use restrictions for Sound of Mull sites

Site	Type of Planning	Restrictions on ADD use
Bloody Bay	2011 Order	None
Fishnish A	Review/Audit	None
Fishnish B	2011 Order	None
Fiunary	Review/Audit	None
Scallastle	Review/Audit	Use of ADDs should be restricted to times when there is visual presence or evidence of seal attacks only

The Bloody Bay farm experienced seal predation in early 2017 and up until this point seals had not been an issue and therefore ADDs had not needed to be used. As a result of significant damage to stocks in 2017 SSF would like to install ADDs at this farm for the next production cycle (commencing November 2018) which would be there as a back-up secondary measure should tensioned netting not deter seal predation.

Proposed use of ADDs and mitigation

It is proposed to have ADDs installed at all five SSF sites in the Sound of Mull and operated strictly in accordance with the **Sound of Mull ADD Deployment Plan (Appendix E)**. This plan sets out a sequential approach which ensures that ADDs are only used where tensioned netting is not fully effective against seal predation and where seal related fish mortality is demonstrated. Stages are included which define when ADDs can be activated and when they should be deactivated to prevent use over prolonged periods of time.

Improved cage nets

With the investment in new cage infrastructure proposed for Fishnish A and B new cage nets will also be installed. These will replace the existing standard nylon cage nets with significantly stronger polyethylene nets and increased cage net tensioning using sinker tube technology. These new nets have been trialed at other SSF sites and have in most cases significantly reduced the level of seal predation and number of seal-related fish mortalities. It is anticipated that damage to fish from seals will be reduced at Fishnish A and B and therefore overall the likelihood of needing to switch ADDs on will be reduced.

Cage nets for all other Sound of Mull farms will be replaced with the stronger polyethylene nets at the start of the next production cycle for each farm, as identified in Table 4.

Table 4: Proposed timing of net replacement for Sound of Mull sites

Site	Proposed year of net replacement
Bloody Bay	2018
Fishnish A	2019
Fishnish B	2019
Fiunary	2021
Scallastle	2021

Cumulative use of ADDs

SNH expressed concern over the potential of ADD use simultaneously across all fish farms in the Sound of Mull to cause significant disturbance and displacement to harbour porpoise within this area of the SAC. During the next production cycle (2019-2021) the Fiunary and Scallastle farms will still have nylon cage nets and therefore will be at an increased risk of seal predation compared to the other sites which will have stronger polyethylene nets and improved net tensioning. These are therefore the sites that would be most likely to require simultaneous ADD use.

To minimise the potential for cumulative impacts on cetaceans a pragmatic proposal which restricts the simultaneous use of ADDs to either: one of the five Sound of Mull farms; or the Fiunary and Scallastle farms to use ADDs at the same time, has been included in the revised ADD Deployment Plan.

It is recognised that there is significant uncertainty over the likely disturbance range of ADDs for cetaceans, which could be higher or lower depending on many factors such as ambient noise, bathymetry, hearing threshold and behavioural response of individual animals. Avoidance responses to ADDs have been well studied for harbour porpoise and available studies reviewed by Coram *et al.* (2014) identified some variability in terms of response distances but generally concluded that there was a zone of exclusion within a few hundred metres and a wider zone of disturbance up to several kilometres within which numbers of individuals decreased. Studies cited in the Coram paper that assessed Airmar ADDs identified disturbance effects ranging from 991m to 3.5km.

Cumulative disturbance will be a function of noise level and the duration animals are exposed to noise if transiting through the sound. The maximum simultaneous use of ADDs allowed by the proposed ADD Deployment Plan within the Sound of Mull would be Fiunary and Scallastle farms, which are 16.5km apart

(measured from site centres). Using 3.5km as a rough guide to potential disturbance effects the simultaneous use of ADDs at these two sites would not cause disturbance over an overlapping and extended length of the Sound of Mull. The use of ADDs would also be temporary with a maximum duration period of two weeks before the ADD protocol is restarted, further reducing the risk of cumulative disturbance.

ADD use beyond 2021

SSF acknowledge that the Sound of Mull lies within the Inner Hebrides and Minches SAC designated for its harbour porpoise population and that it is considered a sensitive location in terms of potential indirect and unintentional disturbance of porpoise and other cetaceans from underwater sound generated by ADDs. Once all farms have upgraded to polyethylene nets with improved net tensioning and we can demonstrate that these improvements can limit seal predation to an acceptable level, it is our intention to completely phase out the use of ADDs in the Sound of Mull.

Monitoring and review

SSF continuously monitor, review and adapt farming practices to improve farm management. The ADD Deployment Plan also commits to daily recording of signs of seal predation, seal related fish mortalities and use of ADDs which will be available to Argyll and Bute Council and SNH on request. This information will inform a review of the ADD Deployment Plan at the end of each production cycle with any future changes being agreed in consultation with SNH and Argyll and Bute Council.

Conclusion

The Sound of Mull and the Fishnish area in particular, have supported significant records of harbour porpoise activity in recent years, despite existing ADD use in this area. SSF do however accept that the Sound of Mull is a sensitive location in terms of potential indirect and unintentional disturbance of porpoise and other cetaceans. We have therefore identified significant changes in ADD use at all Sound of Mull sites which will reduce the risk of significant disturbance. These include:

- Investment in stronger cage nets and associated net tensioning which should reduce the need to use ADDs;
- Replacing continuous ADD use at sites with limited ADD use where tensioned netting has not been fully effective against seal predation and seal related fish mortality is demonstrated;
- Limiting the amount of time ADDs can remain on;
- Limiting simultaneous use of ADDs to a maximum of two sites;
- Intention to remove ADDs from all farms in 2021 once cage nets are fully upgraded.

The measures proposed will significantly reduce the level of ADD use within the Sound of Mull compared to existing use and will reduce the risk of significant cumulative impacts on harbour porpoise and other cetacean species in the Sound of Mull. We therefore consider that these measures provide appropriate mitigation that will avoid an adverse effect on site integrity of the Inner Hebrides and Minches SAC.

References

1. [Coram, A., Gordon, J., Thompson, D. and Northridge, S \(2014\). Evaluating and assessing the relative effectiveness of non-lethal measures, including Acoustic Deterrent Devices, on marine mammals. Scottish Government.](#)

Sharon Phipps

From: [REDACTED]@scottishseafarms.com>
Sent: 25 January 2019 17:20
To: [REDACTED]@planning.otlandi@argyll-bute.gov.uk
Cc: Colin MacFarlane; Andrew Campbell
Subject: Fishnish B planning application (18/02166/MFF) - Submission of revised information on ADD use
Attachments: Appendix E - Revised Sound of Mull ADD Deployment Plan - Jan 2019 v7.pdf; Fishnish B Supporting Information Document (revised).pdf

Dear Sandra

Please find attached a revised ADD Deployment Plan for the Sound of Mull and updated Supporting Information Document (Section on Inner Hebrides and Minches SAC) which have been amended in response to the SNH holding objection to this application, and following further discussion with SNH on the use of ADDs.

Please let me know if you require any further information.

Kind regards

[REDACTED]

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[Scottish Sea Farms](#)

Appendix E – Sound of Mull ADD Deployment Plan

Version 0.7

Revised January 2019

ADD Deployment Plan for SSF Sound of Mull Farms.

Introduction

Fish farms can attract predatory species including seals and if not managed, seals can cause damage to stocks and equipment, potentially leading to stock escapes, and sufficiently stress farmed stock to affect production. In addition to seeking to limit the loss of stock from both an economic and environmental perspective, Scottish Sea Farms have a fundamental ethical and legal duty of care under the Animal Health and Welfare (Scotland) Act 2006 to protect the health and welfare of farmed stock. Implementation of anti-predator measures are therefore essential to protect farmed stocks.

The Predator Exclusion Plans for all Sound of Mull sites set out a sequential approach to anti-predator measures which take a balanced approach to protection of farmed stocks and minimising effects on non-target wildlife.

SSF acknowledge that the Sound of Mull lies within the Inner Hebrides and Minches SAC designated for its harbour porpoise population and that it is considered a sensitive location in terms of potential indirect and unintentional disturbance of porpoise and other cetaceans from underwater sound generated by ADDs. Once all farms have upgraded to polyethylene nets with improved net tensioning and we can demonstrate that these improvements can limit seal predation to an acceptable level, it is our intention to completely phase out the use of ADDs in the Sound of Mull.

Scope of Deployment Plan

1. The marine farms covered in this ADD Deployment plan are **Scallastle, Fishnish A, Fishnish B, Fiunary, & Bloody Bay.**
2. This ADD Deployment Plan will be followed at the above farms from the stocking of the Fishnish A farm (scheduled April 2019).

Protocol for activating/deactivating ADDs

10. Where losses of salmon through seal predation have been zero for two consecutive days the ADD system must be switched to "Off/Standby".
11. Where losses of salmon through seal predation are confirmed during any deading process then the cascade of actions is ...
 - A. to verify net tensioning (including that all weights of the correct size are in place at every downrope & deadbasket)
 - B. ensure that the sidewall is fully fastened to the top net to prevent any seal accessing the handrail
 - C. step up mortality removal to a minimum of every alternate day (including weekends)
 - D. checking that dead basket seating is correct & the base of the net is holding shape
 - E. ensure ADD functionality (but do not yet make operational)
12. Where losses of salmon through seal predation, (despite following actions 11 A->D) have continued into a 3rd day then the farm should activate ADDs using the 'soft start' feature, following approval from the Farm Support Manager (Step 16).
13. ADDs should be deactivated on-farm when two consecutive days deading have resulted in zero fresh dead through seal predation, or if losses of salmon through seal predation from an individual seal have continued beyond two weeks.
14. Where losses of Atlantic salmon continue through seal predation despite fully functional net design and the use of ADDs, procedures for seal management should be considered as described in the Predator Exclusion Plan.
15. All farms are covered by a regional Seal Management Licence legally permitting seal destruction as a last resort. Such action is only taken if site staff are confident that an identified individual represents a reasonable threat to net integrity or stock welfare. If an individual seal is culled then ADDs are switched off and the procedure starts again.
16. In exceptional circumstances where multiple seals can be identified as predated a farm, ADDs may be reactivated with approval of the Farm Support Manager in consultation with SNH, within 24 hours (at Point 13) where losses of salmon through seal predation have continued despite the cull of an individual seal; or if seal related fish mortality increases immediately after deactivation.

Minimising simultaneous use of ADDs at multiple farm sites

17. Where the need to activate ADDs at an individual farm has been identified (Steps 11 & 12) the Site Manager must gain permission from the Farm Support Manager. This is to ensure that the simultaneous use of ADDs at multiple sites is managed in order to reduce potential for cumulative indirect and unintended disturbance to non-target wildlife.

18. From June 2019 onwards, the Farm Support Manager can only approve the activation of ADDs at either:

- a. One single site within the Sound of Mull at any one time; OR
- b. At both Fiunary and Scallastle sites at the same time.

Monitoring ADD use and record keeping

19. Farms above will maintain a record form: "ADD Inspection, Clean/Maintenance Record" in their Marine Folder: 10.

20. Farms above will maintain a daily Log monitoring seal interaction and ADD usage. This record is called "Daily sheet/ADD Record Sheet." It is a farm manager's responsibility that this form is completed daily. Forms are filed in folder 20 section 1.

21. The daily farm logs will be made available to Argyll and Bute Council and SNH on request.

Daily Seal /ADD record sheet							issue date:		
Date	Seals number seen, SPECIES	Seal Activity Behaviour, how near cages	Net interaction none, abrasion, damage, holes - state what	Fish behaviour stress, feeding, swim pattern	Fish interaction seal damaged mortalities (no)	ADDs Model in Use	ADDs In use continuously, night time only, not at all?	ADD Management Weekly/Monthly Inspection/ Test/ Maintenance	Sign Off Farm staff undertaking Inspection/ Test/ Maintenance
-Nov-18									
1-Nov-18									
1-Nov-18									
1-Nov-18									
1-Nov-18									
1-Nov-18									
1-Nov-18									
1-Nov-18									
1-Nov-18									
1-Nov-18									
0-Nov-18									
1-Nov-18									
2-Nov-18									
3-Nov-18									
4-Nov-18									
5-Nov-18									

22. The ADD manual will be available to all via SSF SharePoint.

23. Farms will record any salmon losses as a consequence of seal predation as "Seal" in the SSF Fish Talk database. Where salmon are required to be culled as a consequence of seal predation these too are to be recorded under the title of "Seal" and added to the SSF Fish Talk database.

24. Farm managers should be able to demonstrate seal predation losses of salmon through running a Fish Talk graphic (for example as below).

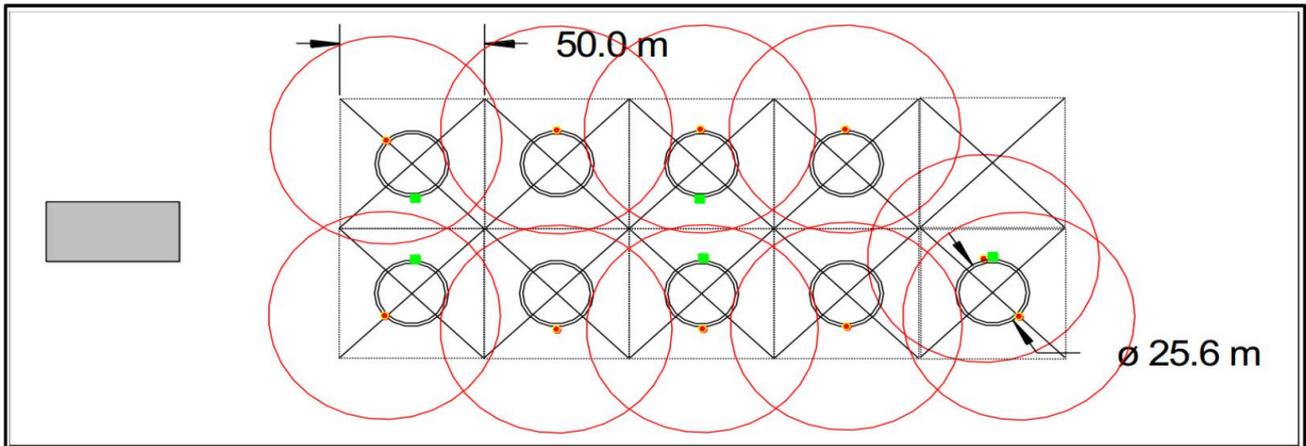
Appendix 1 - Acoustic Deterrent Device Specification

- Sound of Mull sites are fitted with either Airmar DB+II device or the Sea Guard Seal Deterrent device. Both operate at 10kHz with an indicative source level of 197 dB and are considered to be effective up to 40m in all directions.
- The Airmar DB+II can drive a maximum of four projectors and the SeaGuard 6-Channel Seal Deterrent a maximum of six projectors. All controllers (2, 4 & 6) fire one projector at a time.
- The duty cycle of the Airmar DB+II is 2.8 seconds firing pulse, followed by a gap of 3 seconds.
- The SeaGuard 6-Channel Seal Deterrent is programmable with a random projector firing order, with variable firing durations between 0.5 seconds and 2.8 seconds. There is a 0.5 second gap between the end of one firing pulse and the beginning of the next.
- All products have a soft start feature which is intended to warn other marine mammals in the area that the system is starting up.

Appendix 2: Deployment Specification for all Sound of Mull Farms

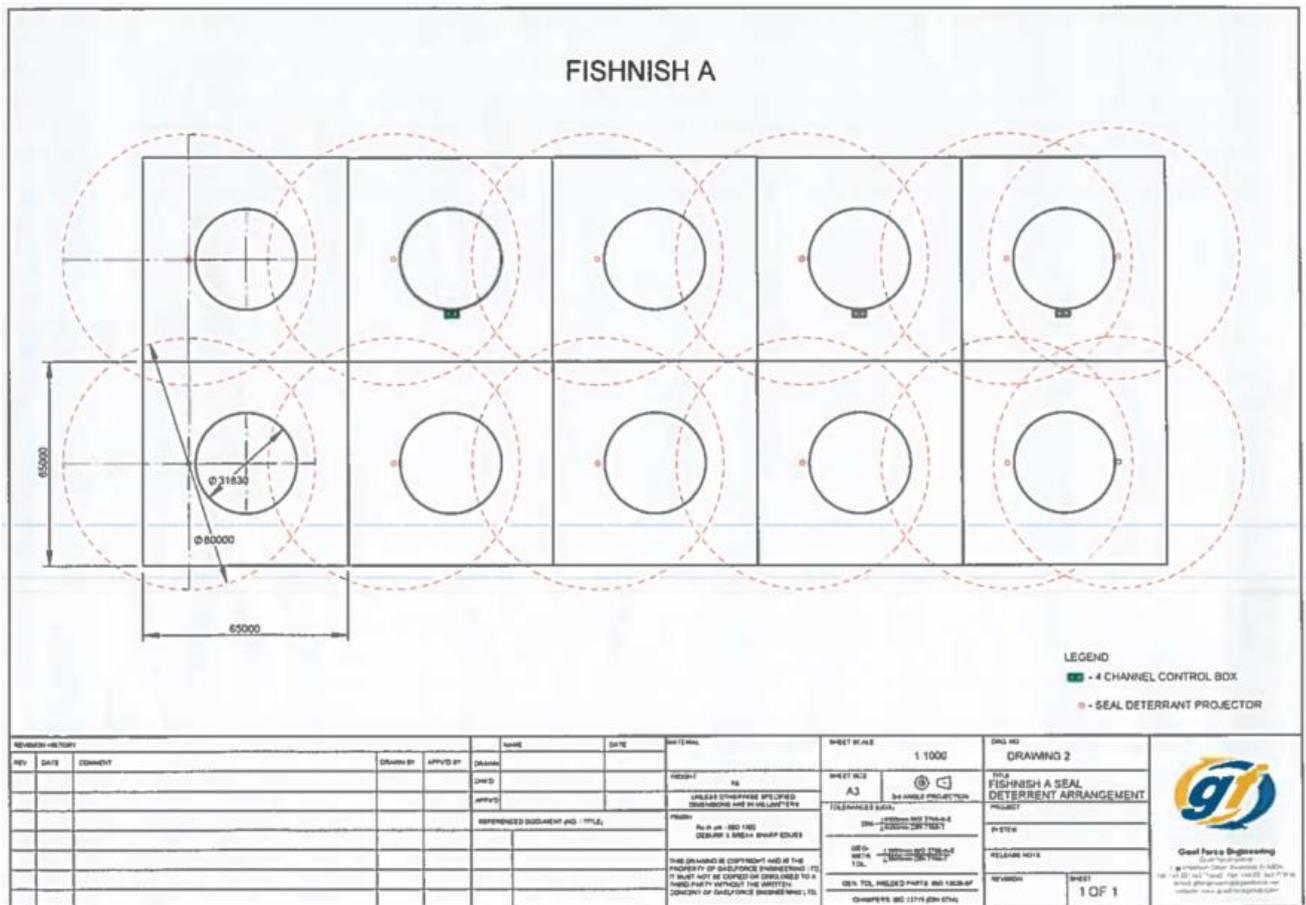
Diagram of each site with position and number of ADD projectors

BLOODY BAY

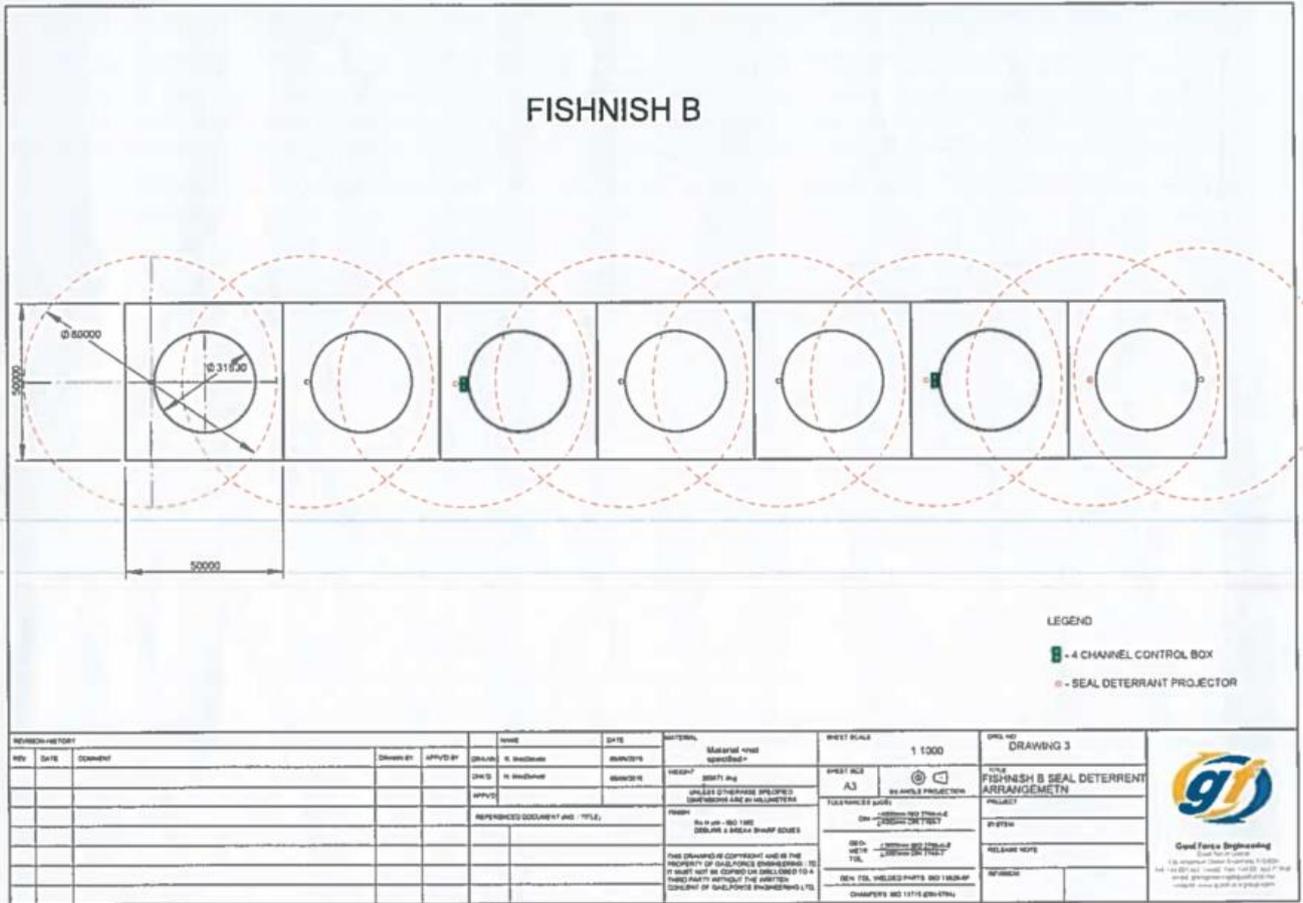


10 SeaGuard Sea Deterrent projectors using 2-channel control boxes. Note – ADDs have not yet been installed at this farm.

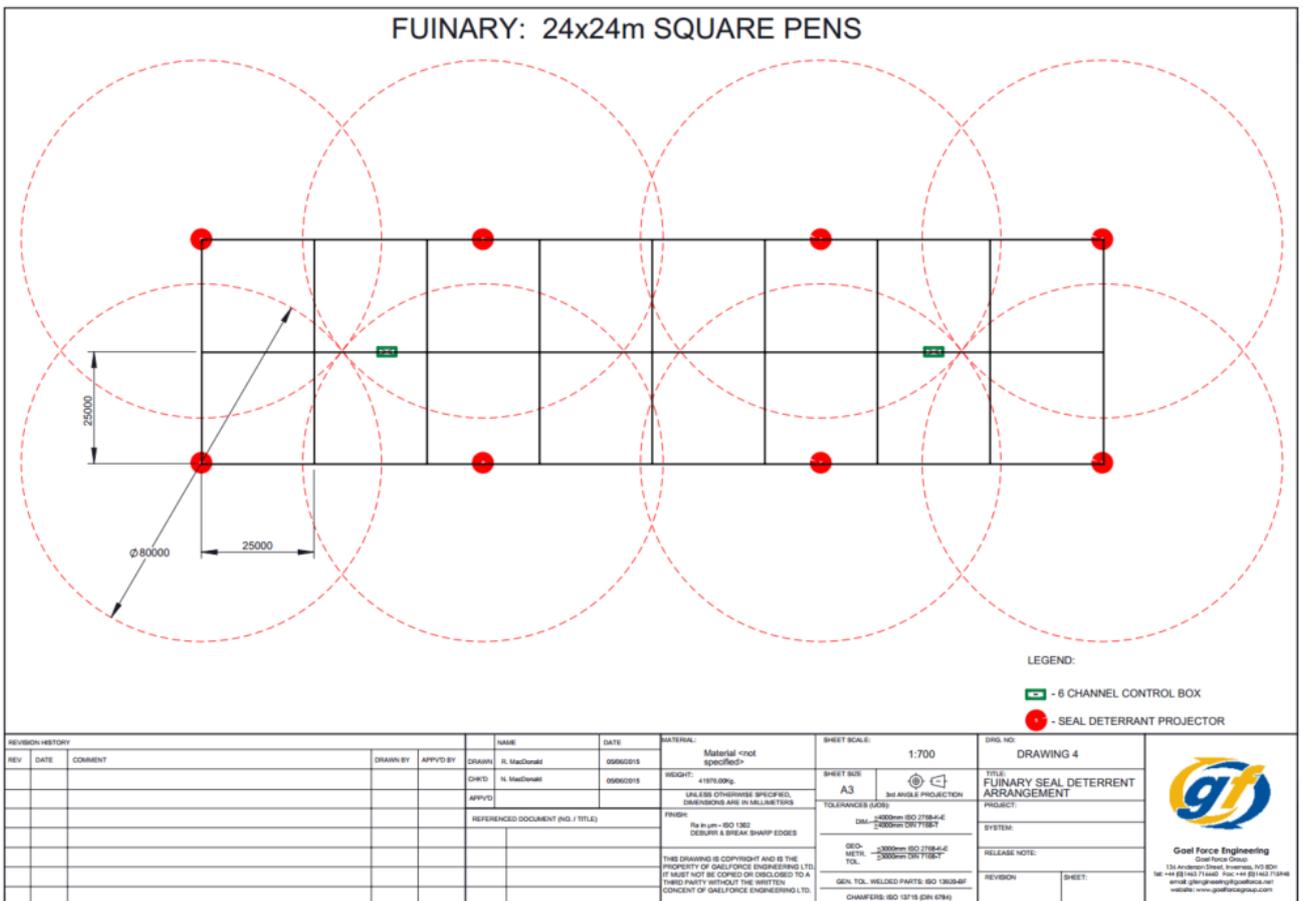
FISHNISH A



12 Airmar DB+II projectors using 4-channel control boxes

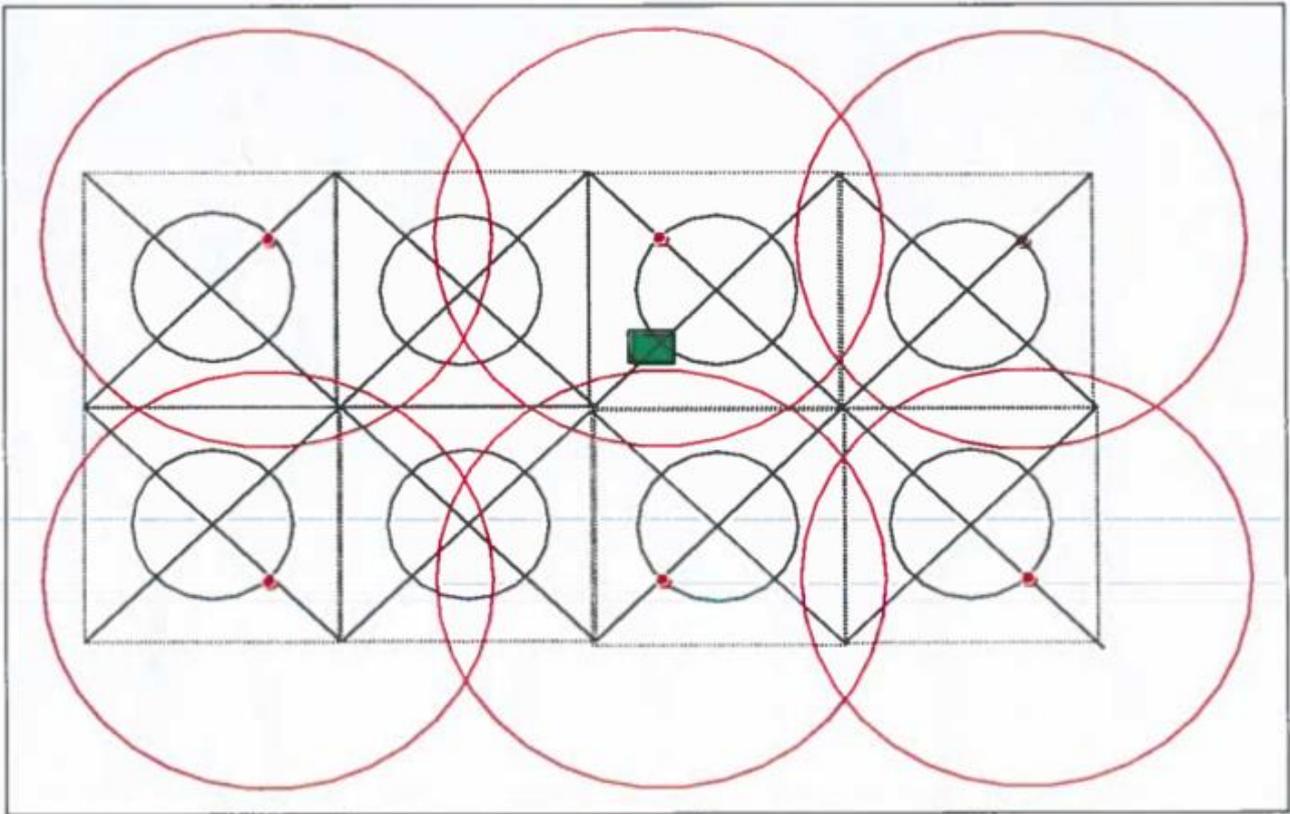


8 Airmar DB+II projectors using 4-channel control boxes



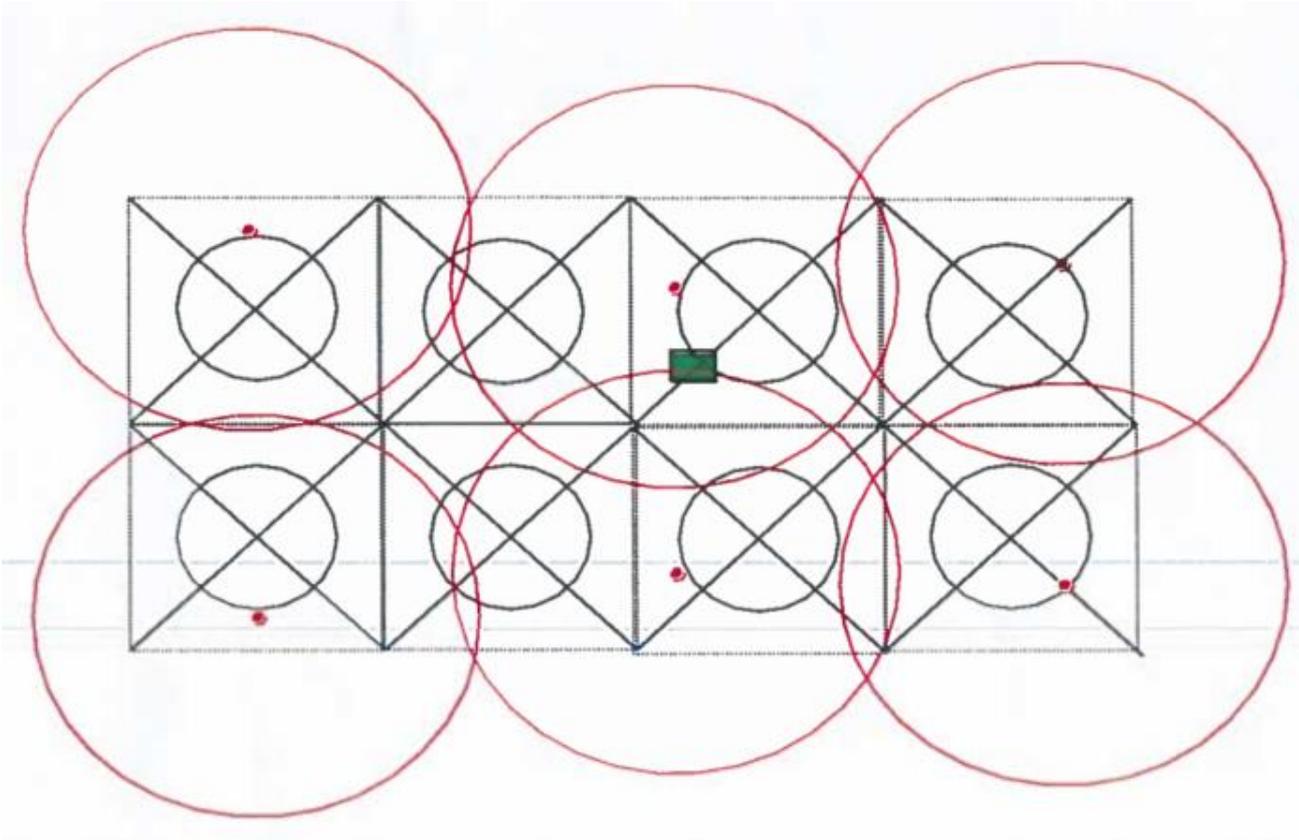
8 Airmar DB+II projectors using 4-channel control boxes

SCALLASTLE (EAST CAGE GROUP)



6 SeaGuard Seal Deterrent projectors using SeaGuard 6-channel control box

SCALLASTLE (WEST CAGE GROUP)



6 SeaGuard Seal Deterrent projectors using SeaGuard 6-channel control box

Supporting Information Document – Fishnish B application

1. Development proposal

Scottish Sea Farms propose to change cage equipment at the existing Fishnish B farm in the Sound of Mull. The proposed modification is seeking to replace existing steel square cages with modern circular cages while maintaining the same level of production. With the proposed change in cages SSF propose to invest in new stronger cage nets which will reduce the potential for seal predation and the risk of escapes.

It is proposed to replace 10 no. x 24m x 24m square cages with 7 no. x 100 m circumference cages in a 50 m grid and to replace the existing storage barge and shore-based feeding system with an automated feed barge, as detailed in Table 1.

Table 1: Existing and proposed site equipment and area

	Existing	Proposed
Cages	10 x 24m x 24m sq	7 x 100m circles in a 50m grid
Barge	7 x 15m storage barge	6 x 17.2m feed barge
Total surface area	6,351m ²	5,674m ²
Moorings area	82,152m ²	171,100m ²

Equipment attestations have been provided which confirms that the proposed specification of equipment (**Appendices M-O**) has been carefully identified by suitably qualified personnel and are appropriate for the site-specific conditions expected at the proposed site in the Sound of Mull, Argyll.

2. Site servicing and operation

The site will be serviced from the existing shore base located at Fishnish (NM 65632 422980). Operational activities typically occur between the hours of 08:00 and 17:00 but may occasionally be carried out outside these hours. All harvesting and stocking will be carried out by wellboat. There will be no noticeable change in servicing and operational activities from the current situation.

Cage net specification

Top nets are 300mm mesh Dyneema on the top panel and 50/75mm mesh Ply Star polyethylene on the side panels with a height of 4.5 metres above the water level. Cage nets are made of knotted polyethylene with a mesh size of 20mm and a cage net depth of 10 metres. Full net specification is provided in **Attachments G and J**.

Feed barge

The existing farm has a shore-based feeding system and therefore currently no feed barge. It is proposed to install a 170 tonne feed barge at the East end of the cage group (**Attachment H**), replacing an existing storage barge of a similar scale as depicted in **Attachment K**.

Disposal and removal of mortalities

Cage nets will be checked daily by underwater camera for mortalities and removed by dead basket lift a minimum of three times weekly, but more often if required depending on mortality level as per Section 6.4 in **Appendix J** (Veterinary Health and Welfare Plan).

All mortalities are collected at the site and secured in specific mort tubs with lids. These are then transferred by boat to the shorebase where the incinerator is located. Ash resulting from the incineration is legally disposed of in general waste.

Only under special circumstances or when the disposal method explained above is not functioning correctly mortalities will be placed in sealed skips that will then be moved to licenced landfill or anaerobic digester plant by a local licenced transport company.

3. SEPA CAR licence

The existing site is consented under CAR licence (CAR/L/1003494). The proposed changes in cage size and layout will require a technical variation to this licence, an application for which was submitted to SEPA on 29th August 2018. No increase to the existing biomass (975 tonnes) has been requested. **Appendix B** identifies the appropriate biomass and Infeed treatment chemical limits for the new cage configuration.

4. Production information

Maximum stocked biomass will remain the same as the existing SEPA consent at 975 tonnes, as will the maximum production biomass per cycle at 1,218 tonnes. The maximum stocking density will decrease from the current 21.2 kg/m³ to 13.5 kg/m³.

The fallow period will be a minimum of two months, with a minimum 4 weeks synchronous following across all farms in the M35 Farm Management Area.

5. Benthic impact

The proposed modification of the Fishnish B farm does not involve an increase in maximum biomass but will result in production being spread over a larger cage area. The effects on seabed habitats and species from the deposition of waste feed, faeces and medicinal residues is considered by SEPA under the CAR regime.

AUTODEPOMOD Modelling has been carried out in order to identify appropriate biomass and infeed treatment chemical limits for this new cage configuration (**Appendix B**). Due to high current velocities and in particular the high bed velocities, at this site only 4% of the released mass is predicted to be retained within the modelled system. Given the residual current at this site is to the north west, it is likely that the majority of material exported from the model grid will be dispersed within the wider area of the Sound of Mull. The change in cage configuration from square to circular cages results in an AZE footprint of 13572.1m² which is slightly smaller than the predicted AZE footprint of the existing cage configuration (17155m²).

Overall, the Modelling Summary Report (**Appendix B**) identifies that the proposed reconfiguration of cages at Fishnish B will adhere to the required SEPA environmental standards, with no significant change to the amount of licensed medicinal treatments and no significant change in predicted benthic impact due to no net increase in biomass.

A video transect survey (**Appendix C**) was undertaken in June 2018 and focussed on an agreed single transect with SEPA and SNH to cover the extended areas of the proposed cage group and predicted depositional footprint. Substrate along the transect varied from gravelly, muddy sand with scattered boulders at the west end (water depth of 33m) to fine sand and then muddy sand at the east end (28m). No burrows attributable to *Nephrops norvegicus* or other megafaunal burrowing species were present. The west end of the transect, on gravelly sediments was notable for aggregations of the brittlestar *Ophiocomina nigra* together with hydroids *Nemertesia antennina*, *N. ramosa* and *Halecium* sp., and abundant tube anemones *Cerianthus lloydii*. The east end of the transect, on muddy sand had no *Ophiocomina* but moderate densities of buried *Amphiura* with arms exposed for filter-feeding. A full description of the seabed habitat and species recorded is reported in **Appendix C**.

Conclusion

There will be some change in dispersion of effluent from the cages as a result of the greater cage volume, increased spacing between cages and decreased stocking density. It is anticipated that this change will be beneficial, resulting in increased dispersion and hence reduced intensity of benthic impact in the immediate vicinity of the site. No significant effects on Priority Marine Features (PMF) are anticipated given that no PMFs were identified in the immediate vicinity of the site and that the export of material outwith the AZE will be widely dispersed within the Sound of Mull at a low level of deposition.

6. Water column impact

There will be no net increase in biomass at Fishnish B and only minor changes to the licenced use of medicinal treatments, as outlined in **Appendix B**. It is therefore concluded that there is no risk of additional impacts on the water column from nutrient enhancement or medicinal treatments from the proposed site reconfiguration.

7. Wild Migratory Salmonids

The equipment changes proposed at Fishnish B do not involve an increase in biomass and therefore there is considered to be no increased risk to wild migratory salmonids.

Containment

The proposal is to upgrade farm equipment from square steel cages to stronger plastic circular cages. The existing site uses nylon cage nets and it is proposed to upgrade these nets with significantly stronger polyethylene nets with increased net tensioning using sinker tubes. These equipment changes will reduce the risk of escapes and in terms of daily operations, the same management practices will apply to the amended site as apply to the current site, as detailed in the **Appendix F** and **Appendix G**.

Site specific attestations have been provided from equipment manufacturers that confirm equipment is suitable for the conditions expected at the site and will meet the design requirements specified by The Technical Standard for Scottish Finfish Aquaculture (**Appendices M-O**).

Sea lice management

There will be no increase in biomass at Fishnish B. **Appendix B (Modelling Summary Report)** and **Appendix H (Sea Lice Efficacy Statement)** demonstrate that the farm will continue to have access to quantities of in-feed and bath treatments that will allow efficacious treatment of sea lice at all stages of the production cycle. Fishnish B is an existing site where no increase to Slice has been applied for, therefore as per the Framework for the application of SEPA's interim position on the use of emamectin benzoate in finfish farms (Version 2 18 October 2017), the Interim Position Statement does not apply in this case.

The existing Fishnish B farm has a good record of lice control in line with other farms in the Farm Management Area M35. This is reflected in the Marine Scotland screening response to this proposal. The sea lice management strategies that apply to the existing Fishnish B site will not change following a change in cage equipment. The following documents set out the preventative and reactive measures that will be taken to control and treat sea lice at Fishnish B and Farm Management Area M35:

- **Sound of Mull Sea Lice Strategy (Appendix I)**
- **Fishnish B Veterinary Health & Welfare Plan (Appendix J)**
- **SSF Sound of Mull Farm Management Statement (Appendix K)**

Overall the proposal to reconfigure this site is considered unlikely to be detrimental to the effective control and treatment of sea lice in the FMA.

8. Predator interactions

The proposed equipment changes to the existing Fishnish B site are not considered likely to increase the risk to predatory wildlife from disturbance or entanglement below the water. Cage nets will be upgraded to stronger polyethylene with increased net tensioning which will reduce the potential for entanglement of diving birds and seals and seal predation.

It is proposed to install a new design of top net which is taller than existing nets and supported with poles around the edge of the cage rather than the traditional 'hamster wheel' structure. As identified in the elevation drawing for the cage top nets (**Attachment G**) and the cages (**Attachment J**) the height of these nets above the water line will be 4.5m and the mesh size of the side panels will be between 50 and 75mm with a larger 300mm mesh on the top panel. These nets have been used by other fish farm companies in Scotland and are particularly suited to more exposed locations, and remove the need for a central support within the cage itself.

It is understood that 50mm is the preferred mesh size for top nets, considered by SNH as the least risk in terms of bird entanglement risk, and that a 300mm mesh top panel may present an increased risk of bird entanglement. To minimise this risk SSF propose the following adaptive management as mitigation:

- Monitor and record any instances of bird entanglement and make these records available to SNH and Argyll and Bute Council on request;
- Review entanglement records and if bird entanglements occur then consider in consultation with SNH, marking the top nets to make them more visible to birds;
- If bird entanglement continues, consider in consultation with SNH and Argyll and Bute Council appropriate alterations to the top net design.

9. Landscape

The landscape implications of the Fishnish B proposal are considered in **Appendix A (Fishnish A and B Landscape and Visual Appraisal)**.

10. Other marine activities and socio-economic considerations

Commercial fisheries

Creel fishing for prawns is known to occur to the west and east of the Fishnish B farm. The Sound of Mull Marine Spatial Plan (2010) also identifies possible scallop dredging ground to the north of the farm in deeper water.

The West Coast Regional Inshore Fisheries Group (WCRIFG) were consulted in March 2018 and no concerns were raised over the proposed reconfiguration of the Fishnish B farm. New fisheries management measures came into force in March 2016 which restricted certain type of fishing activity in specific parts of the Loch Sunart to Sound of Jura MPA. The proposed moorings extents of the Fishnish B farm is located within a zone where trawling and dredging are restricted. The proposed enlargement of the Fishnish B farm is therefore not likely to impact on scallop dredging in the Sound of Mull.

Overall it is considered that the proposed reconfiguration of the Fishnish B farm is unlikely to significantly affect local fishing interests.

Ferry traffic and safe navigation

The Fishnish to Lochaline ferry transits across the Sound of the Mull from the pier at Fishnish, to the east of the Fishnish B farm. The proposed reconfiguration has been aligned so that the moorings extent is no closer

to the ferry route channel in and out of Fishnish than at present, and the cage group has been deliberately extended to the West, away from the ferry. The farm will be marked as advised by the Northern Lighthouse Board and is not considered to present a navigational issue for the ferry operation or other vessels, being well south of the defined shipping route through the Sound of Mull.

Recreational interests

The Sound of Mull is popular both as a passage route and calm sailing area with sheltered anchorages in Craignure, Loch Aline, Salen and Tobermory. There are no designated anchorages in the vicinity of the farm but the Fishnish B farm will be visible to recreational boat traffic and tourists on the Fishnish to Lochaline ferry and the less frequent Oban to Coll/Barra ferries. There is also a core path and key coastal wildlife watching areas located to the east of the Fishnish ferry pier. The Landscape and Visual Appraisal (**Appendix A**) considers the likely effects on these receptors and concludes that there will be no significant change in visual impact between the existing and proposed cage configuration of the Fishnish B farm.

No significant adverse effects are identified on commercial and recreational activities and therefore no significant socio-economic impacts are anticipated. The proposed site configuration will ensure long term job security within the local community, maintaining the current levels of employment across the existing farm at Fishnish B.

11. Protected sites, habitats and species

Mingarry Burn Special Area of Conservation (SAC)

At the EIA screening stage SNH identified that the freshwater pearl mussel interest of the Mingarry Burn SAC should be considered as part of the determination of this development proposal given that it is within a 35km radius of the SAC. The seaward entrance of this SAC is approximately 31km (by sea) from the Fishnish B farm. Migratory salmonids such as salmon and sea trout play a vital part in the life cycle of fresh water pearl mussels and Mingarry Burn SAC is reliant on both juvenile salmon and trout (sea trout).

To inform the Habitats Regulations Appraisal (HRA) process that will need to be undertaken by Argyll and Bute Council the following concerns identified by SNH, which are relevant to potential interactions between fish farming and fresh water pearl mussels, are considered further:

- Impact from farm escapes
- Impact on increased lice burdens upon wild salmonid populations

The planning proposal being considered is for a change in cage equipment at the existing Fishnish B farm, with no change in maximum biomass, and therefore level of production. ***What is relevant to this assessment is therefore the changes to the farm and their likely consequences, rather than consideration of the entire farm and its current interaction with wild salmonids which has already been assessed under its existing planning permission.***

Impact from farm escapes

The proposal is to upgrade farm equipment from square steel cages to stronger plastic circular cages. The existing site uses nylon cage nets and it is proposed to upgrade these nets with significantly stronger polyethylene nets with increased net tensioning using sinker tubes. These equipment changes will reduce the risk of escapes from net damage, seal predation and storm events. In terms of daily operations, the same management practices will apply to the amended site as apply to the current site, as detailed in **Appendix F (Containment Plan)** and **Appendix G (Escapes Prevention Plan)**.

It is concluded that there is no increased risk to wild salmonids from farm escapes as a result of proposed changes at Fishnish B.

Impact of increased lice burdens upon wild salmonid populations

The existing Fishnish B farm has a good record of lice control in line with other farms in the Farm Management Area M35. This is reflected in the Marine Scotland screening response to this proposal. The sea lice management strategies that apply to the existing Fishnish B site will not change following a change in cage equipment. These are outlined in the following documents which are reviewed during the fallow period between production cycles and updated/amended as required:

- **SSF Sound of Mull Sea Lice Strategy (Appendix I)**
- **Fishnish B Veterinary Health & Welfare Plan (Appendix J)**
- **SSF Sound of Mull Farm Management Statement (Appendix K)**

There will be no increase in biomass at Fishnish B or significant change in the availability of medicinal treatments licenced by SEPA. The **Modelling Summary Report (Appendix B)** and **Sea Lice Efficacy Statement (Appendix H)** demonstrate that the farm will continue to have access to quantities of in-feed and bath treatments that will allow efficacious treatment of sea lice at all stages of the production cycle. Fishnish B is an existing site where no increase to Slice has been applied for therefore, as per the Framework for the application of SEPA's interim position on the use of emamectin benzoate in finfish farms (Version 2 18 October 2017), the Interim Position Statement does not apply in this case.

It is concluded that there is no increased risk to wild salmonids from farm derived sea lice as a result of proposed changes at Fishnish B.

Habitats Regulations Appraisal (HRA)

The approach to HRA follows a three-stage process as detailed in SNH guidance (SNH, 2010). Our conclusions on this appraisal are set out below.

- **Stage 1:** *Is the proposal directly connected with or necessary to the conservation management of a Natura site?*
- **Stage 2:** *Is the proposal likely to have a significant effect (LSE) on the qualifying features of a Natura site either alone or in-combination with other plans or projects?*
- **Stage 3:** *Can it be ascertained that the proposal will not adversely affect the integrity of a Natura site?*

Stage 1 - The proposal is not directly connected with or necessary to site management for the conservation of the SACs and therefore consideration of Stage 2 is required.

Stage 2 - While there is potential connectivity between the location of the farm and wild salmonids which are a key part of the SAC features lifecycle, there is no increased risk to wild salmonids as a result of the changes proposed. It is therefore concluded that the proposal is not likely to have a significant effect on the qualifying features of Mingarry Burn SAC, either alone or in-combination with other plans and projects. Consideration of Stage 3 is therefore not required.

Loch Sunart to Sound of Jura Nature Conservation Marine Protected Area

The Fishnish B farm lies within the Loch Sunart to the Sound of Jura Nature Conservation Marine Protected Area, selected for its common skate and Quaternary of Scotland glaciated channels and troughs. At the EIA screening stage SNH advised that the proposals potential direct and indirect impacts upon the Common Skate interests of the MPA should be assessed.

The SNH Management Options paper for this MPA states that juvenile and adult skate are unlikely to be affected by finfish farming but that skate eggs are considered to have a medium sensitivity to fish farm pressures such as siltation and surface abrasion from moorings. SNH have previously advised (in response to other fish farm applications) that proposals could theoretically result in reduced availability of prey species, particularly crustaceans in a relatively localised area of a farm.

The following potential direct and indirect effects have been considered:

- Direct impact on potential skate eggs
- Indirect impact on availability of prey species

Skate eggs

Although little is known about the breeding habits of common skate it is believed that their eggs are laid on shallow rocky reefs. Both the cage group and moorings extent of the proposed reconfiguration of the existing Fishnish A farm is located over substrates ranging from gravelly, muddy sand with scattered boulders to fine sand and then muddy sand, and do not overlap with shallow rocky reef habitat. Wider export of material as predicted by the modelling report is likely to result in low levels of seabed deposition which are unlikely to degrade potential egg laying habitat. Given the low potential for interaction with potential egg laying habitat and the likely wider extent of such habitat within the MPA, effects from deposition and mooring abrasion is considered unlikely to be significant.

Availability of prey species

The **Modelling Summary Report (Appendix B)** identifies that the proposed reconfiguration of cages at Fishnish B will adhere to the required SEPA environmental standards, with no significant change to the amount of licensed medicinal treatments and no significant change in predicted benthic impact, due to no net increase in biomass. Localised enrichment is likely to be restricted to directly below the cages given the dispersive nature of the farm location and predicted export of material away from the farm. Wider export of material as predicted by the modelling report is likely to result in low levels of seabed deposition which are unlikely to significantly affect prey species.

Overall, we do not consider that the proposal to configure the Fishnish B farm is capable of affecting, other than insignificantly, the common skate protected feature of the Loch Sunart to the Sound of Jura MPA.

Inner Hebrides and Minches Special Area of Conservation (SAC)

SNH advice

The Fishnish A and B farms are located within the Sound of Mull which is part of the Inner Hebrides and the Minches candidate SAC, selected for its harbour porpoise interest. SNH advice at the EIA screening stage identified that harbour porpoise is frequently recorded in the Sound of Mull and that based on experience with other similar fish farm proposals the development could have a 'likely significant effect' upon the common porpoise interest of the SAC, and therefore it is likely that this development will be subject to an 'Appropriate Assessment'.

SNH advise that the sensitivity of harbour porpoise to the development is in relation to any proposed use of Acoustic Deterrent Devices (ADDs) which may have the potential to disturb this species and other cetaceans. Any mitigation proposed should consider the implications of the proposal in terms of the individual site and cumulatively in respect of all sites in the Sound of Mull.

Seal predation and existing use of ADDs

High densities of fish at fish farms can attract predatory species including seals. If not managed, seals can cause damage to stocks and equipment, potentially leading to stock escapes, and sufficiently stress farmed stock to affect production. In addition to seeking to limit the loss of stock from both an economic and environmental perspective, Scottish Sea Farms have a legal duty of care to protect the health and welfare of farmed stock. Implementation of anti-predator measures are therefore essential to protect farmed stocks.

The Predator Exclusion Plans (**Appendix D**) for all Sound of Mull sites set out a sequential approach to anti-predator measures which takes a balanced approach to protection of farmed stocks and minimising effects on non-target wildlife. While high quality tensioned cage nets are the first line of defence against seal predation,

ADD use is an important secondary deterrent for seals, in the event that tensioned netting does not deter seal predation.

All five farms in the Sound of Mull have experienced seal predation at different times and Table 2 highlights the numbers of fish mortalities attributed to seal predation for sites in 2018, for all farms other than Bloody Bay. It is important to note that fish can also be stressed and stop feeding as a result of seal predation which is not demonstrated here. Data from 2017 has been provided for Bloody Bay as this site has been fallow so far in 2018.

Table 2: Number of fish mortalities attributed to seal predation

Site	Timescale	Seal related mortality
Bloody Bay	2017	4,252
Fishnish A	2018 (Jan-Aug)	217
Fishnish B	2018 (Jan-Aug)	128
Fiunary	2018 (Jan-Aug)	1,116
Scallastle	2018 (Jan- Aug)	2180

In line with existing planning permissions listed in Table 3 the Sound of Mull farms have used ADDs intermittently at all farms other than Bloody Bay.

Table 3: Planning permissions and ADD use restrictions for Sound of Mull sites

Site	Type of Planning	Restrictions on ADD use
Bloody Bay	2011 Order	None
Fishnish A	Review/Audit	None
Fishnish B	2011 Order	None
Fiunary	Review/Audit	None
Scallastle	Review/Audit	Use of ADDs should be restricted to times when there is visual presence or evidence of seal attacks only

The Bloody Bay farm experienced seal predation in early 2017 and up until this point seals had not been an issue and therefore ADDs had not needed to be used. As a result of significant damage to stocks in 2017 SSF would like to install ADDs at this farm for the next production cycle (commencing November 2018) which would be there as a back-up secondary measure should tensioned netting not deter seal predation.

Proposed use of ADDs and mitigation

It is proposed to have ADDs installed at all five SSF sites in the Sound of Mull and operated strictly in accordance with the **Sound of Mull ADD Deployment Plan (Appendix E)**. This plan sets out a sequential approach which ensures that ADDs are only used where tensioned netting is not fully effective against seal predation and where seal related fish mortality is demonstrated. Stages are included which define when ADDs can be activated and when they should be deactivated to prevent use over prolonged periods of time.

Improved cage nets

With the investment in new cage infrastructure proposed for Fishnish A and B new cage nets will also be installed. These will replace the existing standard nylon cage nets with significantly stronger polyethylene nets and increased cage net tensioning using sinker tube technology. These new nets have been trialled at other SSF sites and have in most cases significantly reduced the level of seal predation and number of seal-related fish mortalities. It is anticipated that damage to fish from seals will be reduced at Fishnish A and B and therefore overall the likelihood of needing to switch ADDs on will be reduced.

Cage nets for all other Sound of Mull farms will be replaced with the stronger polyethylene nets at the start of the next production cycle for each farm, as identified in Table 4.

Table 4: Proposed timing of net replacement for Sound of Mull sites

Site	Proposed year of net replacement
Bloody Bay	2018
Fishnish A	2019
Fishnish B	2019
Fiunary	2021
Scallastle	2021

Cumulative use of ADDs

SNH expressed concern over the potential of ADD use simultaneously across all fish farms in the Sound of Mull to cause significant disturbance and displacement to harbour porpoise within this area of the SAC. During the next production cycle (2019-2021) the Fiunary and Scallastle farms will still have nylon cage nets and therefore will be at an increased risk of seal predation compared to the other sites which will have stronger polyethylene nets and improved net tensioning. These are therefore the sites that would be most likely to require simultaneous ADD use.

To minimise the potential for cumulative impacts on cetaceans a pragmatic proposal which restricts the simultaneous use of ADDs to either: one of the five Sound of Mull farms; or the Fiunary and Scallastle farms to use ADDs at the same time, has been included in the revised ADD Deployment Plan.

It is recognised that there is significant uncertainty over the likely disturbance range of ADDs for cetaceans, which could be higher or lower depending on many factors such as ambient noise, bathymetry, hearing threshold and behavioural response of individual animals. Avoidance responses to ADDs have been well studied for harbour porpoise and available studies reviewed by Coram *et al.* (2014) identified some variability in terms of response distances but generally concluded that there was a zone of exclusion within a few hundred metres and a wider zone of disturbance up to several kilometres within which numbers of individuals decreased. Studies cited in the Coram paper that assessed Airmar ADDs identified disturbance effects ranging from 991m to 3.5km.

Cumulative disturbance will be a function of noise level and the duration animals are exposed to noise if transiting through the sound. The maximum simultaneous use of ADDs allowed by the proposed ADD Deployment Plan within the Sound of Mull would be Fiunary and Scallastle farms, which are 16.5km apart (measured from site centres). Using 3.5km as a rough guide to potential disturbance effects the simultaneous use of ADDs at these two sites would not cause disturbance over an overlapping and extended length of the Sound of Mull. The use of ADDs would also be temporary with a maximum duration period of two weeks before the ADD protocol is restarted, further reducing the risk of cumulative disturbance.

ADD use beyond 2021

SSF acknowledge that the Sound of Mull lies within the Inner Hebrides and Minches SAC designated for its harbour porpoise population and that it is considered a sensitive location in terms of potential indirect and unintentional disturbance of porpoise and other cetaceans from underwater sound generated by ADDs. Once all farms have upgraded to polyethylene nets with improved net tensioning and we can demonstrate that these improvements can limit seal predation to an acceptable level, it is our intention to completely phase out the use of ADDs in the Sound of Mull.

Monitoring and review

SSF continuously monitor, review and adapt farming practices to improve farm management. The ADD Deployment Plan also commits to daily recording of signs of seal predation, seal related fish mortalities and use of ADDs which will be available to Argyll and Bute Council and SNH on request. This information will inform a review of the ADD Deployment Plan at the end of each production cycle with any future changes being agreed in consultation with SNH and Argyll and Bute Council.

Conclusion

The Sound of Mull and the Fishnish area in particular, have supported significant records of harbour porpoise activity in recent years, despite existing ADD use in this area. SSF do however accept that the Sound of Mull is a sensitive location in terms of potential indirect and unintentional disturbance of porpoise and other cetaceans. We have therefore identified significant changes in ADD use at all Sound of Mull sites which will reduce the risk of significant disturbance. These include:

- Investment in stronger cage nets and associated net tensioning which should reduce the need to use ADDs;
- Replacing continuous ADD use at sites with limited ADD use where tensioned netting has not been fully effective against seal predation and seal related fish mortality is demonstrated;
- Limiting the amount of time ADDs can remain on;
- Limiting simultaneous use of ADDs to a maximum of two sites;
- Intention to remove ADDs from all farms in 2021 once cage nets are fully upgraded.

The measures proposed will significantly reduce the level of ADD use within the Sound of Mull compared to existing use and will reduce the risk of significant cumulative impacts on harbour porpoise and other cetacean species in the Sound of Mull. We therefore consider that these measures provide appropriate mitigation that will avoid an adverse effect on site integrity of the Inner Hebrides and Minches SAC.

References

1. [Coram, A., Gordon, J., Thompson, D. and Northridge, S \(2014\). Evaluating and assessing the relative effectiveness of non-lethal measures, including Acoustic Deterrent Devices, on marine mammals. Scottish Government.](#)



Scottish Natural Heritage Dualchas Nàdair na h-Alba

All of nature for all of Scotland
Nàdar air fad airson Alba air fad

Argyll & Bute Council
Major Applications Team
1A Manse Brae
Lochgilphead
PA31 8RD

8 Feb 2019

Our Ref: CDM153973
Your ref: 18/02657/MFF

Dear Sir/Madam,

Town and Country Planning (Scotland) Act 1997

Proposal: Modification to equipment and biomass by increasing the number of pens from 12 to 14, increase the biomass from 2500t to a maximum biomass of 3500t and extension of mooring grid to accommodate the additional pens

I write in response to your consultation dated 21st January 2019 requesting comment from Scottish Natural Heritage regarding the above proposal. We advise Argyll and Bute Council that this application be subject to the following condition to ensure it does not have an adverse impact upon the integrity of the Inner Hebrides and the Minches Special Area of Conservation:

- Acoustic deterrent device (ADD) deployment will adhere to the principles and protocol set down in Annex 12, 13 and 14 of the documentation supporting this application. Any changes to these principles and protocol must be agreed by Argyll and Bute Council, in consultation with SNH.

The proposal lies within the Inner Hebrides and the Minches Special Area of Conservation (SAC) selected for its harbour porpoise interest. Background information on the SAC can be found at: <https://www.snh.scot/professional-advice/safeguarding-protected-areas-and-species/protected-areas/international-designations/natura-sites/harbour-porpoise-candidate>

The site's status as a SAC means that the requirements of the Conservation (Natural Habitats, &c.) Regulations 1994 as amended (the "Habitats Regulations") apply. Consequently, Argyll & Bute Council is required to consider the effect of the proposal on the SAC before it can be consented (commonly known as Habitats Regulations Appraisal). The SNH website has a summary of the legislative requirements: (<http://www.snh.gov.uk/docs/A423286.pdf>).

The typical frequencies of ADDs are within the hearing range of harbour porpoise. A significant body of evidence exists to suggest that in some instances ADDs can result in the disturbance, displacement and potential hearing damage to harbour porpoise. The use of ADDs at this site will have a likely a significant effect on the harbour porpoise qualifying interest of the Inner Hebrides and the Minches SAC. The main impact relates to temporary displacement of this species from designated waters around the Colonsay fish farm.

Scottish Natural Heritage, Main Street, Bowmore, Isle of Islay, Argyll, PA43 7JJ,
Tel 01496 810711 Fax 01496 810665 www.snh.org.uk

Dualchas Nàdair na h-Alba, A' Phrìomh Shràid, Bogha Mòr, Eilean Ile, Earra-Ghàidheal, PA43 7JJ,
Fòn 01496 810711 Fax 01496 810665

We advise that where the deployment of ADDs adheres to the principles and protocols detailed within the annex 12, 13 and 14 of the application supporting documentation, the impacts would be minimised to an acceptable level and that the proposal will not have an adverse impact upon the sites integrity.

Consequently, Argyll and Bute Council, as competent authority, is required to carry out an appropriate assessment in view of the site's conservation objectives for its qualifying interests and we would advise the implementation of a planning condition to ensure that any displacement is minimised to acceptable levels.

Please do not hesitate to contact me if you require any further information regarding the above.

Yours sincerely

Colin MacFarlane
Operations Officer
Argyll & Outer Hebrides
Colin.MacFarlane@snh.gov.uk



marineharvest

Isle of Colonsay

ANNEX 12: ACOUSTIC DETERRENT DEVICE DEPLOYMENT GUIDANCE; WRITTEN
BY CLAIRE LUMLEY-HOLMES
11.10.2018

MARINE HARVEST ASA

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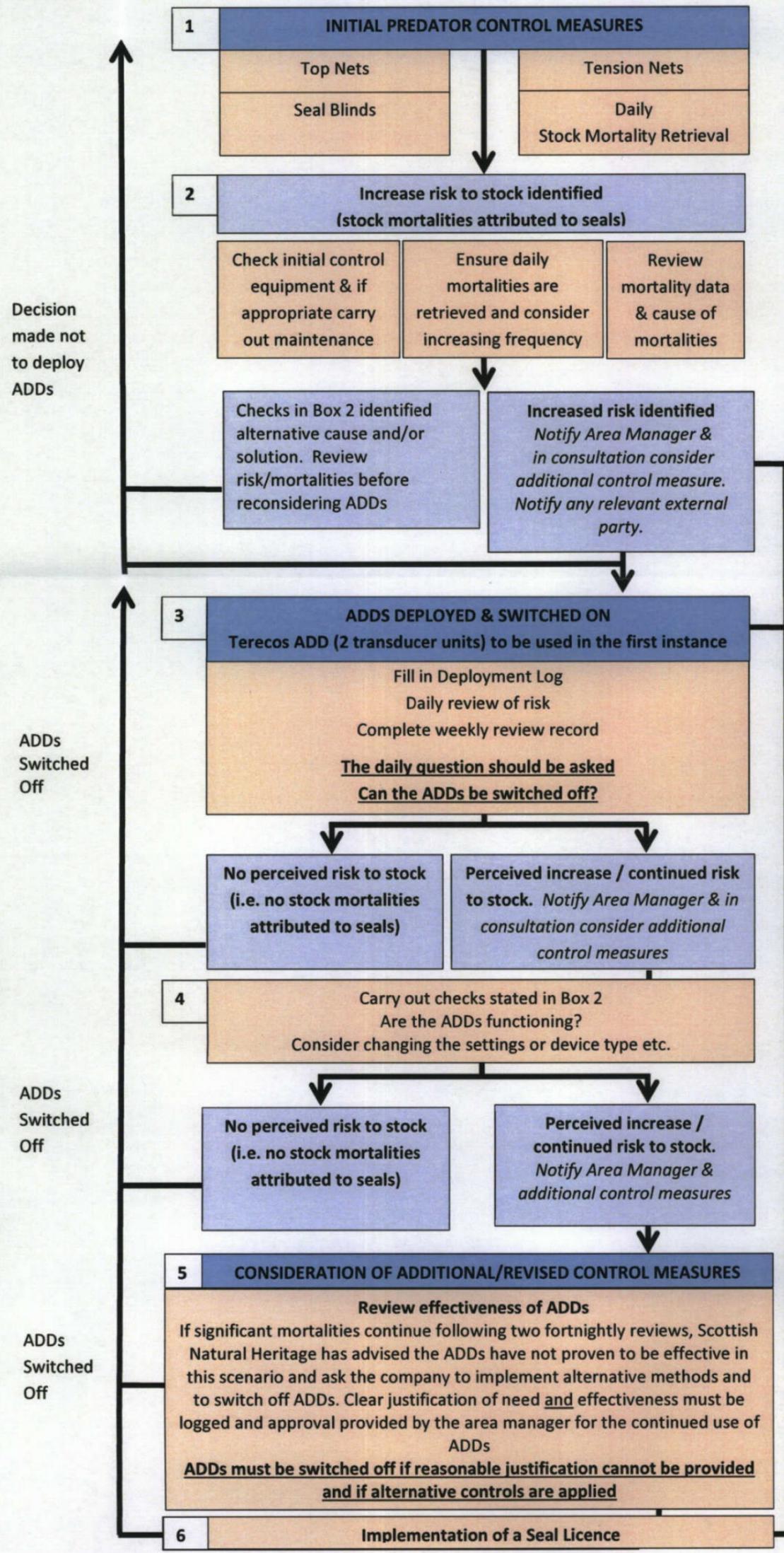
WEB
<http://marineharvest.com>

COLONSAY SALMON FARM

ACOUSTIC DETERRENT DEVICE DEPLOYMENT GUIDANCE

Under the Regulation 39(2) of the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended), it is an offence to deliberately or recklessly disturb any dolphin, porpoise or whale (cetacean). Furthermore, the farm is located within the Inner Hebrides and Minches candidate Special Area of Conservation (cSAC) for the protection of harbour porpoise. Scottish Natural Heritage advise that the use of ADDs has the potential to lead to disturbance/habitat exclusion of harbour porpoise and the continuous noise emission from ADDs is not best practice. The following deployment plan has been developed as a requirement of Scottish Natural Heritage to guide the efficient use of ADDs with due regard to the responsible management of fish welfare and protection given to seal species.

DECISION MAKING FLOW DIAGRAM



ROLES & CONSIDERATIONS

← Marine Harvest and its site managers have a responsibility to maintain the welfare of its stock. The RSPCA welfare standard is based on 5 core freedoms covering the freedom from pain, injury, fear and distress. Your site is independently assessed by Freedom Foods and RSPA Officers prior certification to this standard

← Is there a licence condition or other mechanism which prevent the use of ADDs?
Are any external notifications required before or after use?
If yes, notification sent to, or permission sought from, relevant external party. If in doubt, please consult the Marine Harvest Environmental Team

← The **Site Manager** is responsible for:-

- maintaining a record of the deployment date, make & model of device, dates of use, settings used, the position of the transducers
- a daily review as to whether the risk is still present and whether the ADDs can be switch off or additional measures required. Any changes to ADD use should be recorded, and
- a fortnightly review in conjunction with **Area Manager** as to whether the risk is still present and whether the ADDs can be switch off or additional measures required; actions and justification to be recorded in a log by the **site manager**.
- Site and Area Manager** to review ADD use at the end of each cycle.

← Marine (Scotland) Act - From the 31st January 2011, any fish farm in Scotland that requires to manage seals, at any time of year, will need an annual Seal Management Licence. Predator control at the salmon farm should be managed in a manner which is compliant with the conditions of its licence.

← Prior to taking further steps, the site manager must ensure that the following documents have been completed and approval formally issued by the Seawater Production Manager:-
Authorisation to dispatch seal
Contractor's guidelines – seal dispatch
Please refer to the Seal Protocol for further details or seek guidance from your Area Manager.

Version 4 Updated 20/12/2017

From: [REDACTED]
To: [Liam Wright](#); [Alex Turner](#); [Caroline Carter](#)
Cc: [REDACTED]; [REDACTED]; [REDACTED] "@osc.co.uk"
Subject: SSC - SNH Call to discuss Portree ADD
Date: 12 February 2019 11:04:14
Attachments: [190212 Portree Outer ADD plan A5.doc](#)
Importance: High

Hi Liam, Alex and Caroline

Apologies for the delay in getting this information to you, however please find attached the updated ADD plan for Portree.

Key points of discussion

- Current extenuating circumstances that require support in the short term to agree the ADD plan (SSC)
- The draft desk based noise modelling completed and expert analysis (OSC)
- The we proposed to operate the system in Patrol mode, both on Portree Outer and existing Portree site therefore reducing overall potential impact of the system on HP (OTAQ & OSC)

On today's call we will have:

SNH: Liam, Alex & Caroline

SSC: [REDACTED]

Ocean Science Consulting: [REDACTED]

Arcus: [REDACTED]

[REDACTED]

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The Scottish Salmon Company



Portree Outer ADD Deployment and Usage Plan

Submitted for approval, pursuant to the discharge of relevant parts of planning permission 16/03352/FUL

Date	February 2019
Revision No.	A5
Author	
Reviewer	
Approved by	

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DRAFT

1. Introduction

As a farm operator, it is important that Scottish Salmon Company (SSC) is able to protect the fish held on site from any predator threat and has developed a site specific Predator Control Plan for the Portree Outer site, which details the measures that will be used to deter avian and mammalian predators. The use of Acoustic Deterrent Devices (ADDs) forms part of this plan.

2. Purpose of ADD Deployment and Usage Plan

This plan has been prepared, and provided to the Highland Council, in order to satisfy Condition 1 on Planning Permission ref 16/03352. This Condition has been added, in order that the development meets the requirements of the 'Inner Hebrides and Minches' candidate Special Area for Conservation (cSAC), designated for harbour porpoise.

The Portree Outer site is located within the boundary of the 'Inner Hebrides and the Minches' candidate Special Area of Conservation (cSAC) for harbour porpoise. The Conservation Objectives for the Inner Hebrides and the Minches cSAC are;

1. *To ensure that the Inner Hebrides and the Minches SAC continues to make an appropriate contribution to harbour porpoise remaining at favourable conservation status.*
2. *To ensure for harbour porpoise within the context of environmental changes, that the integrity of the Inner Hebrides and the Minches SAC is maintained through 2a, 2b and 2c:*
 - 2a. *Harbour porpoise within the Inner Hebrides and the Minches are not at significant risk from injury or killing.*
 - 2b. *The distribution of harbour porpoise throughout the site is maintained by avoiding significant disturbance.*
 - 2c. *The condition of supporting habitats and the availability of prey for harbour porpoise are maintained.*

In order to ensure that SSC operations at the Portree Outer site meet Objective 2, careful consideration has been given to the methods of seal deterrence which may be used, in particular ADDs. This is due to the perceived potential for interaction with cetaceans in the vicinity of the site. Various measures will be employed at the Portree Outer site prior to ADDs being considered necessary and these measures are detailed in the Predator Control Plan.

3. ADD Deployment and Usage

3.1 Equipment Specification – OTAQ SealFENCE

The proposed ADD for Portree Outer is the **OTAQ SealFENCE Seal Deterrent System** being operated in Patrol mode. This system uses a bespoke ultrasonic transmission to create an acoustic fence around the cages, specifically for seals. The technical details of the system are as follows:

During Patrol mode only one system on the farm is transmitting at any point in time. Each transmission is 1.5 seconds in length and is followed by a 10 second gap until the next system transmits. The source level during this mode is **170 db re 1mPa.m RMS** with a frequency range of between 9 and 11 KHz

OTAQ will provide installation, staff training and maintenance of the whole system. OTAQ will also provide any necessary software updates.

A SealFENCE deployment system has been designed specifically by OTAQ for the Portree Outer site. Each transmitter provides around 45m (90m diameter range) of deterrence to seals and a total of 16 projectors will be located around the perimeter of the cage groups. The proposed layout of units is

shown below in Figure 1 (diagram provided by OTAQ). This will ensure that, when activated, there is an effective perimeter protection with sufficient overlap between each projector.

The SealFENCE system can be controlled centrally from the barge. This provides the farm manager with a visual representation of how the system is operating and allows the activation or deactivation of the system.



Figure 1 - Proposed SealFENCE design and coverage at Portree Outer site

3.2 Triggers for Activation

It is proposed that the system is normally switched off and may be activated by the site manager. The system will only be used for part of the year and specifically switched off for some parts of the year to reduce the possibility of any disturbance of harbour porpoise.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mode	Patrol	Patrol	Patrol	Off	Off	Off	Patrol	Patrol	Patrol	Patrol	Patrol	Patrol

Sightings of seals, in close proximity to the site, will be recorded by site staff regularly in the Seal Log. Seal activity within the site boundary will result in appropriate action being taken in line with the Predator Control Plan.

The decision to activate and deactivate the SealFENCE will be made by the site manager, in accordance with the attached ADD deployment decision flow diagram (Figure 2). The ADD deployment plan and decision flow will be followed if mortalities which are directly attributable to seal kills are recorded. It is imperative that SSC protect their stock, therefore the ADD will remain operational for as long as seal mortalities are no longer being recorded, within a minimum 2 week period. The effectiveness of the system, and the requirement for the continued activation of the system, will be reviewed daily within this period. The continued use of the SealFENCE will be reviewed at the end of the initial period.

If cetaceans are sighted in the vicinity of the site and the SealFENCE is active, site staff are able to manually temporarily disable the system (until cetaceans are no longer sighted), although this disabling could only occur if there was no longer deemed to be a seal threat to the fish held on site (i.e. seal mortalities are no longer being recorded)).

Details on SealFENCE activation/ de-activation and performance are recorded electronically by the system. Further details on activation ‘triggers’ are provided in the flow diagram.

3.3 Data Logging

3.3.1 *Use of ADDs*

Detailed records will be kept by SSC on the duty cycle of the ADD, which will detail deployment cues, operational dates, sound frequency and duration. In addition, the SealFENCE system contains a monitoring component, which continuously monitors and records the output from each projector. As well as allowing operators to verify that their system is working correctly in real-time, this also means that it can provide data verifying exactly how a system has been working during a period of time. This will allow for a full record of dates and times that the device is sounding, and the duration.

3.3.2 *Predation*

Seal activity in the proximity of the site will be recorded in the Seal Log and site diary, and seal mortalities will be recorded on the FishTalk system. Cetacean sightings will also be recorded in the site specific Wildlife Log. As noted above, records will be kept by SSC, which will detail deployment cues, operational dates, sound frequency and duration. This information will be reviewed collectively by the site manager and regional manager at the end of each production cycle, and will inform future decisions on predator control measures at the site.

4. Responsible Persons

- Site Manager and Senior Marine Operative.

5. Review Process

SSC commits to meet with Highland Council (and Scottish Natural Heritage (SNH), if requested), at an agreed timescale, to review the ADD Deployment Plan, and information gathered from the Seal Log, Wildlife Log and ADD performance records. The robustness of the ADD deployment plan will be reviewed at these meetings and SSC commits to work with Highland Council, on any changes to the plan deemed necessary to meet the requirements of the cSAC.

6. Associated Documents

- Portree Outer Wildlife Log;
- Portree Outer Seal Log;
- Portree Outer Predator Control Plan;
- Portree Outer ADD Deployment Plan; and
- Portree Outer ADD records.

Sharon Phipps

From: Caroline Carter
Sent: 12 February 2019 15:41
To: Kirsty North
Subject: RE: Casework Notification - Advice Requested - Marine Fish Farm new site 12 x 120 M circular cages plus feed barge - Isle of Scalpay -

Follow Up Flag: Follow up
Flag Status: Flagged

Categories: Message saved

Hi Kirsty,

Think I've read the relevant part of the ES now, but please point me in the right direction if there is more. I think this inconsistency just needs to be clarified. I think our existing comments still stand, but I've added some thoughts to their text below.

Please come back to me if this raises any further questions,

All the best,
Caroline

Section 5.5.2b

Page 87

- *“removing the option to use ADDs puts potential pressure on the welfare of farmed fish and the protection of seals”* - not necessarily if suitable alternatives exist. Some farms are able to operate without ADDs with the newer stronger nets.
- *“little scientific evidence which provides conclusive data on the impact of ADDs”* - Conclusive evidence is not what is required. There is enough scientific evidence in existence to highlight the potential, and as far as I'm aware under Natura that's sufficient.
- It's quite true to say that there are other anthropogenic and environmental factors which affect animals' movements, but I don't think that is enough to say that the impact of ADDs is not of relevance.
- *“members of MHS staff have observed cetaceans near the vicinity of fish farms at times when ADDs are active”* *“suggests that the deterrents do not exclude cetaceans from the surrounding area”* – not proof of no effect. A behavioural response is highly context dependant.

Page 88

- Here they state that there are five different ADDs used at MHS considered for use at the new site

Page 89

- This is where they bring in the proposal of OTAQ ADD system – this may be ok, but the ADD plan needs to reflect this and make it clear.

Page 92

- Here they say that although there are no planning conditions or legal requirements for their existing farms, they will look at site level guidance for all farms, and the offer for us to review all the data they collect.

From: Kirsty North

Sent: 12 February 2019 14:19

To: Caroline Carter

Subject: RE: Casework Notification - Advice Requested - Marine Fish Farm new site 12 x 120 M circular cages plus feed barge - Isle of Scalpay -

Hi Caroline,

I've just been reading through the section on ADDs in the ES again and it seems to contradict their ADD Deployment Guidance (Appendix 5.5b).

In the ES they say they propose to install OTAG SealFence ADDs in the first instance should stock mortalities be attributed to seals. They also provide a diagram showing 20 of these devices installed across the site, as oppose to the 2 Terecos units mentioned in the ADD Deployment Guidance. Is this something you noticed when you were looking at the case too?

Thanks,
Kirsty

Kirsty North | Operations Officer

Scottish Natural Heritage | Fodderty Way | Dingwall Business Park | Dingwall | IV15 9XB | t: 01463 701610 dd: [REDACTED]

Dualchas Nàdair na h-Alba | Slighe Fhodhraitidh | Pàirc Gnothachais Inbhir Pheofharain | Inbhir Pheofharain | IV15 9XB

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From: Caroline Carter

Sent: 29 January 2019 16:13

To: Kirsty North

Cc: Alex Turner; Liam Wright

Subject: RE: Casework Notification - Advice Requested - Marine Fish Farm new site 12 x 120 M circular cages plus feed barge - Isle of Scalpay -

Hi Kirsty,
Cc Alex, Liam

I have now had chance to review the documents, focussing on Appendices 5.3a, 5.5a and 5.5b.

Appendix 5.3 presents the predator mitigation plan in the form of a one page flow diagram. Appendix 5.5a includes MHS policy on ADD use and 5.5b is their ADD deployment guidance. We have seen all these documents previously and have had discussions relating to the MHS ADD deployment guidance (Liam, Alex and myself).

The company's policy is to use ADDs rather than predator nets, and they cite potential entanglement as the reason for not deploying predator nets (App. 5.3a).

This is a new farm application, and therefore we should ask them to first consider operating the site without using ADDs at all (as per our draft guidance). There are nets available now that are thought to prevent seal predation without needing other measures. For example Seal Pro netting <https://www.garwarefibres.com/product/sapphire-sealpro/> this has/is being proposed by other companies. If they are procuring new kit for this site, then that the perfect time to look at other options.

Appendix 5.5a details the company's commitment to achieving ACS certification, and within this, there is a limit to the number of days the ADD system is in operation to less than or equal to 40% of the time the site is stocked. This could be a significant amount of time, and so my feeling is that we should be aiming for a lower proportion than this.

Appendix 5.5b is the ADD deployment guidance, this serves as the Plan, and as mentioned above we have seen this previously and commented on earlier versions, and therefore we are largely happy with what is being presented.

Within this there is the commitment to check for stock mortality daily and ensure that any morts are retrieved. If seals are suspected, then ADDs are to be activated. Here they stipulate that two Terecos units are to be deployed in the first instance. I think we've picked this up before with them. They need to stipulate what device type they may change to, the number of transducers and locations on the cages. Terecos are devices with the lowest noise output of the commonly used ADD types, and there is evidence out there that suggests Terecos has limited impact on porpoise, and so in the wider scheme of things, we are less likely to be concerned with Terecos use. This isn't necessarily the case with other device types, and so alternatives need to be documented so we can consider this scenario. Or, I guess, they may need to apply for an amendment? Alex/Liam is this what would have to happen if they leave the plan as is?

Additional measures need to be defined (see roles and responsibilities alongside box 3).

Box 5 details the consideration of additional revised control measures, but really only includes the review of effectiveness of ADDs. Here they state we have advised if they are still getting morts attributable to seals after two fortnightly duration ADD use, then our view is the ADD system is not effective. This is not quite true, as we have advised ADDs are not effective after two weeks, not two fortnights. The box also stipulates that clear justification for continued use must go to the area manager, but my concern with the text as it stands here is that if internally justified ADD activation could be over an undefined length of time, and so I think this needs tightening.

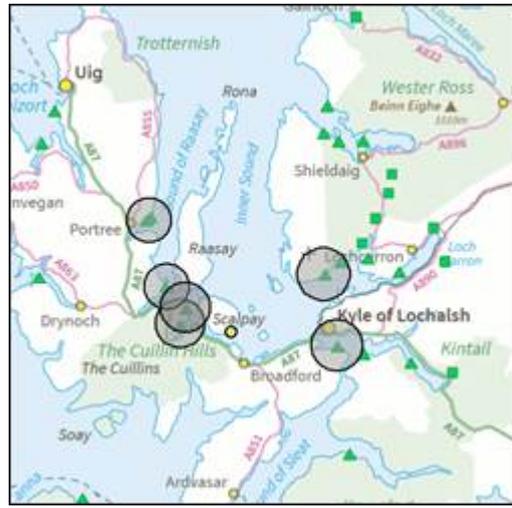
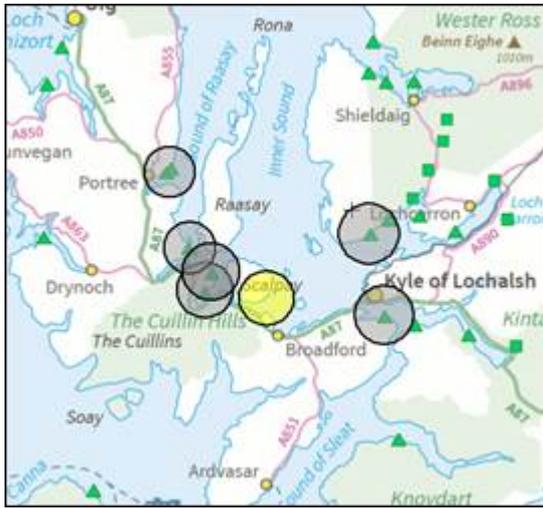
I think Alex will be able to help you with wording that he has used similar applications.

Our current draft guidance recommends that any use of ADDs is LSE, but if this farm uses Terecos for less than 40% of the time the site is stocked. I do not think this would result in an adverse effect in site integrity. If they are looking to use some of the louder devices, I think we would want this proportion of time minimised further.

The second part of your request asked me to look at the cumulative effects with existing farms. I believe most other farms in the area are also MHS (but please check if this is the case). If so, I believe that there is scope to ask MHS for an integrated plan (we have asked for this in the Sound of Mull). We have also previously highlighted the Raasay area as one of concern for ADD use. Here we would want the company to ensure that all their farms are not using all ADDs at the same time. I have added two maps below, map A details all farms with the approx 3.5 km disturbance zones, and it can be seen that the entire area is potentially ensonified resulting in the risk of a barrier effect between Skye, Raasay and Scalpay. Map B shows a reduced disturbance zone for the new site, estimated for the Terecos device type. Cumulatively, you could argue that using Terecos does not add much to the overall cumulative picture. However, give these are only rule of thumb estimates, I think there is still merit in asking the company to generate an integrated plan with their other sites.

A

B



I am happy to discuss this further if you need. I've CC'd Alex and Liam into my reply, so we can make sure we are being consistent.

All the best
Caroline

From: Kirsty North [<mailto:kirsty.north@nature.scot>]
Sent: 24 January 2019 11:51
To: Caroline Carter
Subject: Casework Notification - Advice Requested

Casework Notification - Advice Requested

CDM153767 - 18/05907/FUL - Marine Fish Farm new site 12 x 120 M circular cages plus feed barge - Isle of Scalpay - 9 Jan 2018

Your advice has been requested on this case.

Kirsty North says: *Hi Caroline, Please could I get your advice on the possible impacts of this new fish farm on harbour porpoise associated with the cSAC, especially in terms of the ADD plan and potential cumulative effects with existing fish farms? This is my first fish farm case in this area, but Alex tells me there has been various discussion in the past regarding previous proposals in the area and their impact on the cSAC. It may be worth arrange a TC for us all to chat through the case, so let me know if this is something that you think would be useful. Many thanks, Kirsty*

[Select "Casework Management System" to view the case.](#)



Scottish Natural Heritage
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All of nature for all of Scotland
Nàdar air fad airson Alba air fad

By email to: planning.oland@argyll-bute.gov.uk

Planning Services
Argyll & Bute Council
Municipal Buildings
Albany Street
Oban
PA34 4AW

Date: 13 February 2019
Your ref: 18/02024/MFF
Our Ref: CDM152613

Dear Sir/ Madam,

TOWN AND COUNTRY PLANNING (SCOTLAND) ACT 1997

PROPOSAL: Replacement of existing steel square cages with 10 x 100m circumference cages and retention of feed barge (with no increase in biomass)

SITE ADDRESS: Fishnish A, Fish Farm Fishnish Craignure Isle of Mull Argyll and Bute

Thank you for your consultation dated 12th February 2019 regarding the above proposal. As requested in our response letter to you dated 2nd November 2018, the applicant has submitted a revised Acoustic Deterrent Device (ADD) Deployment Plan (version 0.7), which allows us to conclude our advice on this application. Please note that our advice on all other natural heritage matters detailed in our letter of 2nd November 2018 remain valid.

Summary

In combination with other fish farm sites, this proposal will have a likely significant effect upon the Inner Hebrides and Minches Special Area of Conservation (SAC), notified for its harbour porpoise interest. However, implementation of the revised ADD deployment plan (version 0.7) will ensure that disturbance to harbour porpoise will be minimised to an acceptable level and that it will not have an adverse impact upon site integrity. As this proposal affects an internationally important natural heritage interest, we object to this proposal unless it is subject to a planning condition which ensures full implementation of the ADD Deployment Plan (version 0.7) and that any future revisions are approved by the Council, in consultation with SNH.

Appraisal

Inner Hebrides and Minches Special Area of Conservation

Fishnish is located within the Sound of Mull, which falls within the boundaries of the Inner Hebrides and Minches Special Area of Conservation (SAC), designated for its harbour porpoise population. Our previous response dated 2nd November 2018 detailed our concerns regarding the initial ADD Deployment Plan for the Sound of Mull. We advised there was potential for ADDs to cause significant disturbance and displacement to harbour porpoise and that in combination with other existing sites, this proposal would have a likely significant effect upon the SAC and we could not rule out adverse impact upon site integrity at this time.

The alterations contained within the revised ADD deployment plan ensure that the risks to harbour porpoise are reduced to an acceptable level. Improvements include fewer sites using ADDs, an agreed protocol for their activation/ deactivation and a guarantee limiting systematic ADD activation within the Sound of Mull. The applicant has liaised with us regarding these improvements.

In our view, this proposal is likely to have a significant effect on harbour porpoise. Consequently, Argyll and Bute, as competent authority, is required to carry out an appropriate assessment in view of the site's conservation objectives for its qualifying interest(s). To help you do this, we advise that in our view on the basis of the information provided, if the proposal is undertaken strictly in accordance with the ADD Deployment Plan (version 0.7), then the proposal will not adversely affect the integrity of the site.

If the planning authority intends to grant planning permission against this advice without the suggested conditions, you must notify Scottish Ministers.

If you require any further advice from regarding on the above please do not hesitate to contact Colin MacFarlane on 0131 3162688 (Colin.MacFarlane@nature.scot).

Yours sincerely

Andrew Campbell
Operations Manager
Andrew.Campbell@nature.scot



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All of nature for all of Scotland
Nàdar air fad airson Alba air fad

By email to: planning.oland@argyll-bute.gov.uk

Planning Services
Argyll & Bute Council
Municipal Buildings
Albany Street
Oban
PA34 4AW

Date: 13 February 2019
Your ref: 18/02166/MFF
Our ref: CDM152993

Dear Sir/ Madam,

TOWN AND COUNTRY PLANNING (SCOTLAND) ACT 1997

PROPOSAL: Replacement of existing steel square cages with 7 x 100m circumference cages and replacement of feed barge (with no increase in biomass)

SITE ADDRESS: Fishnish B, Fish Farm Fishnish Craignure Isle of Mull Argyll and Bute

Thank you for your consultation dated 12th February 2019 regarding the above proposal. As requested in our response letter to you dated 22nd November 2018, the applicant has submitted a revised Acoustic Deterrent Device (ADD) Deployment Plan (version 0.7), which allows us to conclude our advice on this application. Please note that our advice on all other natural heritage matters detailed in our letter of 22nd November 2018 remain valid.

Summary

In combination with other fish farm sites, this proposal will have a likely significant effect upon the Inner Hebrides and Minches Special Area of Conservation (SAC), notified for its harbour porpoise interest. However, implementation of the revised ADD deployment plan (version 0.7) will ensure that disturbance to harbour porpoise will be minimised to an acceptable level and that it will not have an adverse impact upon site integrity. As this proposal affects an internationally important natural heritage interest, we object to this proposal unless it is subject to a planning condition which ensures full implementation of the ADD Deployment Plan (version 0.7) and that any future revisions are approved by the Council, in consultation with SNH.

Appraisal

Inner Hebrides and Minches Special Area of Conservation

Fishnish is located within the Sound of Mull, which falls within the boundaries of the Inner Hebrides and Minches Special Area of Conservation (SAC), designated for its harbour porpoise population. Our previous response dated 22nd November 2018 detailed our concerns regarding the initial ADD Deployment Plan for the Sound of Mull. We advised there was potential for ADDs to cause significant disturbance and displacement to harbour porpoise and that in combination with other existing sites, this proposal would have a likely significant effect upon the SAC and we could not rule out adverse impact upon site integrity at this time.

The alterations contained within the revised ADD deployment plan ensure that the risks to harbour porpoise are reduced to an acceptable level. Improvements include fewer sites using ADDs, an agreed protocol for their activation/ deactivation and a guarantee limiting systematic ADD activation within the Sound of Mull. The applicant has liaised with us regarding these improvements.

In our view, this proposal is likely to have a significant effect on harbour porpoise. Consequently, Argyll and Bute, as competent authority, is required to carry out an appropriate assessment in view of the site's conservation objectives for its qualifying interest(s). To help you do this, we advise that in our view on the basis of the information provided, if the proposal is undertaken strictly in accordance with the ADD Deployment Plan (version 0.7), then the proposal will not adversely affect the integrity of the site.

If the planning authority intends to grant planning permission against this advice without the suggested conditions, you must notify Scottish Ministers.

If you require any further advice from regarding on the above please do not hesitate to contact Colin MacFarlane on 0131 [REDACTED] Colin.MacFarlane@nature.scot).

Yours sincerely

Andrew Campbell
Operations Manager
Andrew.Campbell@nature.scot



Scottish Natural Heritage
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nature.scot

██████████
The Highland Council
Glenurquhart Road
Inverness
IV3 5NX
By email to: epc@highland.gov.uk

Your ref: 18/05907/FUL
Our ref: CDM153767

19th February 2019

Dear ██████████

**MARINE FISH FARM – NEW SITE CONSISTING OF 12 X 120M CIRCUMFERENCE
CIRCULAR CAGES PLUS FEED BARGE, ISLE OF SCALPAY**

Many thanks for your email of 8th January consulting us on this planning application.

Summary

The proposal could affect the Inner Hebrides and the Minches Candidate Special Area of Conservation (cSAC) selected for its harbour porpoise interest. However, based on the information provided, this is unlikely to result in an adverse impact on site integrity. It should be noted that our advice is based on the ADD Deployment Plan provided (Appendix 5.3a of the application), and the use of Terecos units. We recommend that you consider whether conditions are required to ensure the development is implemented as proposed.

We also provide advice about impacts on other aspects of the natural heritage in our appraisal below.

Appraisal of the impacts of the proposal and advice

Inner Hebrides and the Minches cSAC

This proposal is located within the Inner Hebrides and the Minches candidate Special Area of Conservation (cSAC), designated for its population of harbour porpoise.

The site's status means that the requirements of the Conservation (Natural Habitats, &c.) Regulations 1994 as amended (the "Habitats Regulations") or, for reserved matters the Conservation of Habitats and Species Regulations 2010 as amended apply. Consequently, The Highland Council is required to consider the effect of the proposal on the cSAC before it can be consented (commonly known as Habitats Regulations Appraisal). The SNH website has a summary of the legislative requirements (<https://www.nature.scot/professional-advice/planning-and-development/environmental-assessment/habitats-regulations-appraisal-hra/habitats-regulations-appraisal-hra>).

Scottish Natural Heritage, Fodderty Way, Dingwall Business Park, Dingwall, IV15 9XB
Tel: 01349 865333 Fax: 01349 865609 www.nature.scot

Dualchas Nàdair na h-Alba, Slighe Fodhraitidh, Pàirc Gnìomhachas Inbhir Pheofharain,
Inbhir Pheofharain IV15 9XB
Fòn: 01349 865333 Facs: 01349 865609 www.nature.scot

In our view, this proposal is likely to have a significant effect on harbour porpoise within Inner Hebrides and the Minches cSAC because the predator control plan includes the use of acoustic deterrent devices (ADDs). Consequently, The Highland Council is required to carry out an appropriate assessment in view of the site's conservation objectives for its qualifying interest. To help you do this, we advise that in our view, on the basis of the information provided and the appraisal carried out to date, it will not adversely affect the integrity of the site. The advice from our appraisal is as follows:

- The hearing range of harbour porpoise includes the sound frequencies emitted by the proposed ADD model. The use of ADDs may result in disturbance/habitat exclusion¹. The evidence of impacts on cetaceans from ADDs currently in use is varied and is dependent on many variables (e.g. noise characteristics of device, how the device is used, the topography, animal behaviour and importance of the area/habitat where the ADD is being used).
- The area around the proposed fish farm has a number of other fish farms which currently use, or have the option to use, ADDs and therefore there is the potential for cumulative impacts, particularly at the southern end of Sound of Raasay.
- The ADD deployment plan indicates that, if required, the developer will deploy two Terecos ADD units. Terecos have lower source levels than many other commercially available devices. Lepper et al. (2014)² quote the Terecos DSMS-4 as having a source level of 178 dB re 1 µPa (RMS). Northridge et al (2010; 2013)³ considered the use of Terecos and found a possible reduction in acoustic behaviour out to 1km, in one case, and no significant disturbance in another.
- In addition, the ADD deployment plan indicates that even when switched on the devices will not sound continuously. The developer's ADD policy states that maximum percentage of days in the production cycle that the devices are operational is required to be ≤ 40%.
- Conservation Objective 2b states that the distribution of harbour porpoise throughout the site is maintained by avoiding significant disturbance. Significant disturbance in this context is where changes to the distribution of harbour porpoise occur on a continuing or sustained basis. In this case the combination of Terecos devices and the ADD deployment plan proposed means there will no adverse effect on the integrity of the cSAC.
- However, the Environmental Statement makes reference to alternative ADD devices and the ADD deployment plan also refers to deployment of Terecos devices 'in the first instance' Use of alternative devices may have greater effects and we therefore recommend that you consider whether it is necessary to condition the ADD deployment plan.

¹ For example - **Coram A.**, Gordon J., Thompson D. & Northridge S. 2014. Evaluating and assessing the relative effectiveness of non-lethal measures, including Acoustic Deterrent Devices on marine mammals. Scottish Government

Götz T., & Janik V.M. 2013 Acoustic deterrent devices to prevent pinniped depredation: efficiency, conservation concerns and possible solutions. *Marine Ecology Progress Series* 492: 285-302

² **Lepper P.A.**, Gordon J., Booth C., Theobald P., Robinson S., Northridge S. & Wang L. 2014. Establishing the sensitivity of cetaceans and seals to acoustic deterrent devices in Scotland. Scottish Natural Heritage Commissioned Report no. 517

³ **Northridge S.P.**, Gordon J.G., Booth C., Calderan S., Cargill A., Coram A., Gillespie D., Lonergan M. & Webb A. 2010. *Assessment of the impacts and utility of acoustic deterrent devices*. Final report to the Scottish Aquaculture Research Forum, project code SARF044

Northridge S., Coram A. & Gordon J. 2013. Investigations on seal depredation at Scottish fish farms. Edinburgh. Scottish Government

Supplementary advice regarding the ADD deployment plan

- Any Acoustic Deterrent Devices (ADDs) that are deployed at this site will be done so in accordance with the agreed ADD Deployment Plan (Appendix 5.3a of the application). Any future changes to the plan must be agreed with the Planning Authority.
- The operator must undertake reporting on ADD usage at the site including:
 1. The exact dates when the device was operated, how often it was operated on that date, for what duration, and what was the cue for its manual or auto-sensor operation;
 2. Details of any predation events by seals and any anti-predation measures (including ADD) deployment) in use at the time should be logged;
 3. Details of the person (or persons) responsible for maintaining the logs;
 4. An undertaking that all logs will be maintained for review by the Planning Authority and/or SNH, if deemed necessary by the Planning Authority.
- This is a new farm and our policy is that in the first instance the developer should consider if it is possible for the site to be operated without the use of ADDs. The Environmental Impact Assessment Report considers and discounts some alternatives, such as use of predator nets, but the assessment is incomplete. In particular we recommend consideration of some of the new seal-proof cage nets which are now available and being used successfully at other fish farm sites.
- While the use of 2 x Terecos ADD devices as currently proposed is likely to be acceptable, swapping to alternative ADD devices (if the Terecos prove to be ineffective) may not be. We understand that swapping cage nets part way through a production cycle would be difficult and, given the proximity of significant seal haul-outs, it would be prudent for the developer to fully consider all alternatives at the outset.
- It would be beneficial if the applicant could produce an integrated plan for their fish farms in this area, as has been done for the Sound of Mull. This will need to ensure that not all of their farms are using ADDs at the same time, potentially creating a significant, cumulative effect on cetaceans using the area.

We recommend that you consider whether it is necessary to impose conditions to achieve the above mitigation. You may wish to carry out further appraisal before completing the appropriate assessment.

Other cetacean species may also use the area of the proposal site. All cetaceans are European Protected Species and similar issues regarding disturbance/habitat exclusion apply to those species and effects on them would also be mitigated by the measures outlined above.

Benthic impacts/Priority Marine Features (PMFs)

The proposal will impact Priority Marine Features (PMFs). The Highland Council should consider the effect of the proposal on the PMF(s) before consenting. We advise that the proposal does not raise any issues of national interest regarding PMF habitats or species. Our appraisal below provides further information.

From analysis of the visual benthic survey provided by the applicant, and carried out in 2015, we can confirm that some areas of the burrowed mud habitat and at least one tall seapen are

present, both of which are PMFs. However, on account of the extent and quality of the burrowed mud that is present and, the absence of any high densities of key component PMF species, we do not consider the potential impacts to be significant.

Protected Species

White-tailed eagles have bred nearby to the proposal site in the past, and as a Schedule A1 and Schedule 1A species they are afforded special protected status. However, as there are currently no nest or roost sites close to the proposal we do not foresee any impacts in terms of disturbance.

Landscape

A Landscape and Visual Impact Assessment has been carried out as requested, following our 'Aquaculture in the landscape' guidance. This includes an assessment of visibility and a series of photomontages representative of the main sensitive receptors, including those we recommended in our scoping response, as well as photos from the summit of Beinn na Caillich.

We agree with the conclusions of the LVIA report, and are satisfied that the proposal is unlikely to adversely affect the special qualities of The Cuillin Hills National Scenic Area (NSA).

Please let me know if you would like clarification or any further advice regarding this case.

Yours sincerely,

Kirsty North
Operations Officer
South Highland
kirsty.north@nature.scot

**Dawnfresh Farming Ltd. Containment and
Escapes Contingency Plan**

**Cumbrae Fish Farm,
Off Great Cumbrae,
Firth of Clyde**

Updated 09/01/2019

Version: 01

Dawnfresh Farming Ltd. (DFF) Containment and Escapes Contingency Plan

This document is a site specific action plan for the containment of fish and recovery of escapes and is designed to provide guidance of how to reduce the likelihood of escapes and of what to do in the event of an escape. This plan details the actions that must be taken to maintain site integrity of fish pens at the Cumbrae site and the actions to be taken in the event of an escape. The plan is in line with the Code of Good Practice for Scottish Finfish Aquaculture (CoGP) and Marine Scotland advice.

All site equipment at the Cumbrae site will comply with the Scottish Technical Standard, when choosing equipment for the site 90 days of current data will be analysed along with wind and wave analysis with a minimum 1:50 year return. This will ensure the equipment chosen for the site is the most suitable for the conditions that it will experience.

Nets will be inspected by divers on a monthly basis and will be inspected immediately prior to any net lifting procedure. Nets will also be inspected after a significant weather event as part of a full site inspection.

All moorings and grid lines will be inspected on an annual basis to ensure site integrity is maintained. Any worn or failing component will be repaired or replaced. Pens will be inspected annually and once per cycle they will be scraped and cleaned of any fouling. Nets will be cleaned regularly with the regularity dependent on the level of growth, at the end of each cycle all nets will be removed and sent away for deep cleaning and strength testing.

Nets will only be lifted using support ropes as part of a planned lift, connections between the rope and the net will be inspected daily. Net weighting will also be checked on a daily basis to avoid any undue pressure being put on any one part of the net.

Harvesting and grading will only be undertaken when conditions are suitable, the deterioration of weather conditions can increase the potential for escapes therefore undertaking such tasks in poor conditions is to be avoided.

Risk assessments will be undertaken prior to any lifting procedure, harvesting and grading. The site manager will be ultimately responsible for containment at the Cumbrae site but DFF encourages all members of staff to be involved as part of a safety culture to increase the awareness at all levels of safety and measures to reduce the potential for escapes.

Should any member of staff notice something out of the ordinary such as a change to the grid system or nets or the presence of fish outside a pen or a reduction in the uptake of feed, a full site inspection will be undertaken to investigate.

DFF will follow the procedure set out by the Scottish Government in any case of suspected escapes - <http://www.gov.scot/Topics/marine/Fish-Shellfish/FHI/Escapes>

Action Plan to be followed in the event of an escape

- Take immediate action to identify firstly whether an escape has taken place and secondly to identify where the escape has occurred. This can be done using a drop down camera or engaging divers to inspect a suspected pen.
- Contact the Seawater Manager (01866 822 [REDACTED]) who will liaise with the necessary authorities and the Farming Director.
- The Seawater Manager will follow the notification procedure below which includes calling and reporting the escape suspicions/confirmations to Marine Scotland Science. This will be followed up by an initial notification form submitted to the Scottish Government and finally a final notification form.
- Take immediate action to halt any further escapes, if a net is damaged, lift the hole above the water line and perform a temporary repair, if this is not possible have a diver perform a temporary repair.

Scottish Ministers must be notified immediately it is believed that an escape of farmed fish has occurred from a fish farm or where circumstances give rise to a significant risk of an escape of farmed fish.

In the first instance an immediate call should be made to:

**The Duty Inspector,
Fish Health Inspectorate,
Marine Scotland Science
Telephone: 0131 2443498**

A MARINE SCOTLAND ESCAPE INCIDENT NUMBER will be allocated to the case which must be used in all subsequent correspondence relating to the incident.

If an escape or risk of escape occurs out of normal business hours the call should be made to:

**The On Call Inspector,
Fish Health Inspectorate,
Marine Scotland Science
Telephone: 0131 2441833**

An Initial Notification Form (appendix 1) should then be completed and sent to the Fish Health Inspectorate mailbox at: ms.fishhealth@gov.scot The information required is average weight, age of fish, number released, disease status, location, weather conditions and sightings of fish. If initial data is not entirely accurate the inaccuracies can be corrected in the final notification which provides final figures.

If an escape occurs at the Cumbrae site the Seawater Manager will also contact the local District Salmon Fisheries Boards and Fisheries Trusts in Argyll and Ayrshire along with the Duty Officer for the Scottish Government.

ADSFB + AFT	Eachaig DSFB	Ayrshire Rivers Trust	The Scottish Government
Cherry Park Inveraray Argyll PA32 8XE Tel 01499 [REDACTED] [REDACTED]@fishlegal.net info@argyllfisheriestrust.co.uk	Quarry Cottage Rashfield By Dunoon Argyll PA23 8QT Tel: 01369 [REDACTED]	Donald Hendrie Building Auchincruive Estate Ayr Ayrshire KA6 5HW Tel: 01292 [REDACTED]	Room 409 Pentland House 47 Robbs Loan Edinburgh EH14 1TY Tel: 0131 244 [REDACTED]

If recapture of escaped fish is considered appropriate DFF will liaise with ADSFB, EDSFB, AFT and ART and agree a recapture strategy prior to applying to Marine Scotland Science for permission to use gill nets.
<http://www.scotland.gov.uk/Topics/marine/Licensing/fishintros/methods>

Within 28 days of submitting the Initial Notification Form, a Final Notification Form will be completed and sent to the Fish Health Inspectorate mailbox at: ms.fishhealth@gov.scot. The information will include the numbers of fish subsequently recaptured or the reasons for not presenting a recapture strategy. Any information submitted in the initial form must also be included in the final form along with any amendments.

If the number of fish lost is unknown at this point, an additional final notification form should be submitted as soon as possible after the losses have been established.

Initial and Final Notification forms can be found in appendix 1 and appendix 2 of this document.

Appendix 1

FARMED FISH ESCAPES – INITIAL NOTIFICATION

This form is to be submitted immediately following **any circumstance** which caused or might have caused an escape of fish from a fish farm site.

Please refer to “WHAT TO DO IN THE EVENT OF AN ESCAPE OF FISH FROM A FISH FARM” for further guidance on how to complete this form: www.scotland.gov.uk/Topics/Fisheries/Fish-Shellfish

1. Please supply details of the authorised aquaculture production business (APB) and farm site:

Site Name:		Site No:	
APB Name:		APB No:	
Contact Name:		Telephone No:	
Fax No:		Email Address:	

2. Please supply the following details regarding the fish escape:

Date & time of incident (nearest estimate)		OS grid reference:	
Site location:		Estimated number of fish lost:	
Species:		Average weight:	
Age in months:		Growth stage:	
Please supply details of any treatments administered for which the fish are in withdrawal:			
Please confirm whether the fish were healthy at the time of the escape, or the nature of any disease:			
Please confirm mortality rates on site and the reasons for mortality:			

3. Please provide details of the circumstances surrounding the fish escape or potential escape (if necessary continue on a separate sheet):

Circumstances Surrounding the Escape or potential Escape Consider: Human error, predation, suspected foul play, failure or wear and tear of equipment (mooring, ropes, netting, cages or pens, boats), weather conditions (wave height, wind speed and tidal strength):		
Suspected Primary Reason for Escape or potential Escape		
Suspected Underlying Cause of Reason for Escape or potential Escape(if applicable)		
Completed by:		The form should be sent to:
Position in Organisation:		The Duty Inspector Fish Health Inspectorate
		Tel: 0131 2443498 Fax: 01224 295620

Date:

Marine Scotland Science

PO Box 101

375 Victoria Road

Aberdeen

AB11 9DB

Email: ms.fishhealth@gov.scot

Appendix 2

FARMED FISH ESCAPES – FINAL NOTIFICATION

This form is to be submitted **not later than 28 days** following the submission of the initial notification of circumstances which caused or might have caused the escape of fish from a fish farm site.
Please refer to “WHAT TO DO IN THE EVENT OF AN ESCAPE OF FISH FROM A FISH FARM” for further guidance on how to complete this form: www.scotland.gov.uk/Topics/Fisheries/Fish-Shellfish

1. Please supply details of the business and the site:

Site Name:		Site No:	
APB Name:		APB No:	
Contact Name:		Telephone No:	
FAX No:		Email Address:	

2. Please provide final details of the escape or Potential escape:

Date of initial notification:		Total number of fish lost (if none please specify “none”)*:	
Marine Scotland incident reference:		Number of fish recovered (if none please specify “none”):	
Action taken by business to recover fish:		Have site movement records been updated:	
Confirmed Primary Reason for Escape or potential Escape			
Confirmed Underlying Cause of Reason for Escape or potential Escape (if applicable)			

3. Follow-up action:

What preventative measures have or will be taken to minimise the risk of a similar incident occurring on this or any of the business’ other sites (continue on a separate sheet if necessary):	
--	--

Completed by:		The form should be sent to:	
Position in Organisation:		The Duty Inspector	Tel: 0131 2443498
Date:		Fish Health Inspectorate	Fax: 01224 295620
		Marine Scotland Science	
		PO Box 101	

		375 Victoria Road Aberdeen AB11 9DB Email: ms.fishhealth@gov.scot
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* If the number of fish lost is unknown at this point please submit a further final notification form once the losses have been established.

	Integrated Management System Procedure	Version:	2
		Issue Date:	18/09/2017
		Revision Date:	18/09/2018
		Approved by:	██████████
PRO-018	Title: Dawnfresh Farming Biosecurity Procedure		

TITLE

Biosecurity Procedure

PURPOSE

To provide a procedure on how Dawnfresh Farming Ltd (DFF) minimises the possibility of the transfer of any diseases.

SCOPE

This procedure applies to all DFF sites.
This includes any interactions with (but not exclusive to) any of the following:-

- Third party contractors
- Fish transport companies
- Egg suppliers
- Other aquaculture companies
- Visitors to sites on fish-farming business
- Visitors to sites for service and maintenance requirements

REFERENCES

- DFF Visitor Form
- Equipment Movement Permission and Risk Assessment Form
- Biosecurity Policy Statement
- Pre-Transfer Check Record Sheet

DEFINITIONS

Dawnfresh Farming Ltd (DFF)

RESPONSIBILITIES

It is the responsibility of the Site Manager / Assistant Manager(s) to ensure that this procedure is followed at all times.

It is then the responsibility of all of the following to act in accordance with such management instructions:

- Third party contractors
- Fish transport companies
- Egg suppliers
- Other aquaculture companies
- Visitors to sites on fish-farming business
- Visitors to sites for service needs to comply with this procedure

	Integrated Management System Procedure	Version:	2
		Issue Date:	18/09/2017
		Revision Date:	18/09/2018
		Approved by:	
PRO-018	Title: Dawnfresh Farming Biosecurity Procedure		

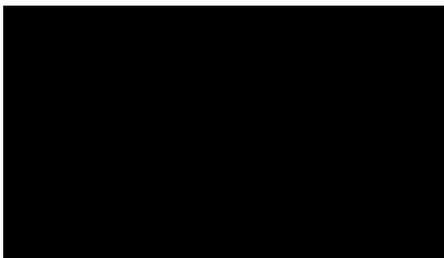
PROCEDURE

All movements of stock, personnel / visitors and equipment must be risk assessed with a view to minimising biosecurity risk within operational parameters and in accordance with the Company Biosecurity Policy Statement.

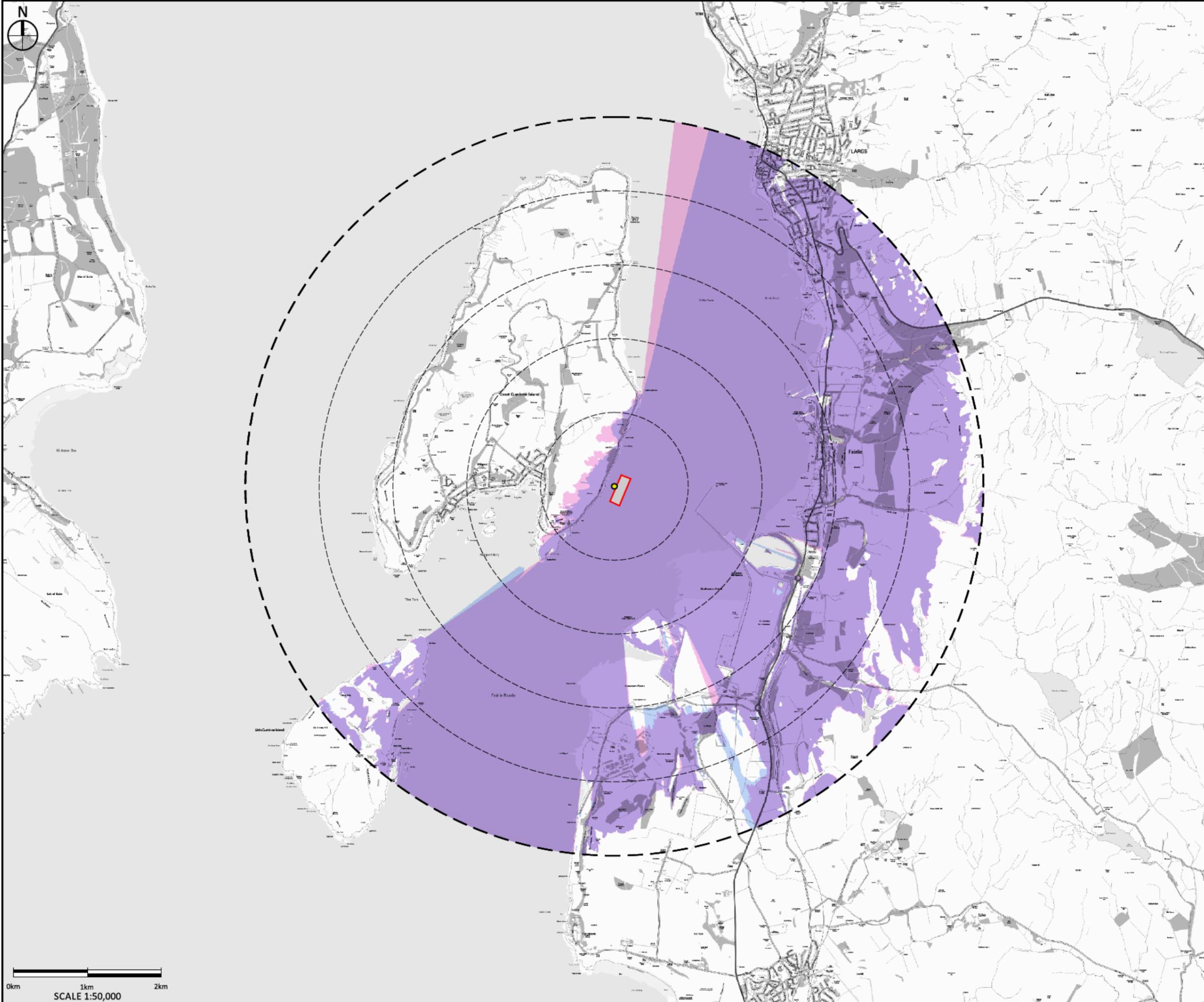
This will be done by following basic principles:-

- All stock movements between farms and within farms will be risk-assessed prior to fish movement.
- In the case of third party fish suppliers, no stocks will be considered for stocking onto DFF farms without 6 months satisfactory surveillance of such supplying farms, via regular visits by DFF Health Management.
- All eggs must be re-disinfected at the receiving site prior to laying down.
- All inter-regional stock movements (as designated by the appropriate national authorities) must be accompanied by, and in compliance with all statutory fish health paperwork.
- Equipment movements between sites will be minimised: all such movements will require prior permission and authorisation via the Equipment Movement Permission and Risk Assessment Form.
- Site specific PPE (wellingtons, oilskins, workwear etc.) will not be moved inbetween sites: all site specific PPE must be clearly marked with the site name.
- All site visitors must be risk assessed by a responsible site person using the DFF visitor form.
- All site visitors must comply with site requirements regarding footwear change, overcoats, hand sanitation etc.
- All site visitors must follow specified visitor routes and other visit conditions as designated by the site manager.
- Vehicle ingress to sites must be avoided wherever possible: where it is necessary, all vehicles must be properly disinfected prior to entry.
- Footbaths will be placed at strategic places within the site and must be properly maintained and used at all times.
- All site fish handling equipment (graders, counters, vaccination equipment, nets, buckets, etc.) must be kept cleaned and disinfected at all times.
- Staff PPE (oilskins, etc.) must be cleaned and washed regularly.

This list is for overall guidance and is not exhaustive. Other actions may be required by the Site Manager or higher level Health Management in accordance with the principles of the Company Biosecurity Statement.



DFF Health Manager



- Key:**
- Proposed Matrix (Pen Centres to be confirmed)
 - Centre of Proposed Feed Barge
 - 5km Study Area
 - 1km Offsets

Zones of Theoretical Visibility (ZTVs)

For all ZTVs, the sea level is set at the mean high water springs (MHWS) level for the nearest port for which data is available, as recorded by the National Tidal and Sea Level Facility predicted for years 2008 to 2026.

MHWS at Millport: 1.77m AOD

- Areas from which proposed pen(s) may be visible
ZTV has been run from corners of each proposed matrix, at 2.5m above MHWS.
- Areas from which proposed feed barge may be visible
ZTV has been run from centre of proposed feed barge, at 7m above MHWS.
- Areas from which proposed pen(s) and feed barge may be visible

DRAFT

Rev. No.	Date	Drawn	App'd.	Details

Title
**Zone of Theoretical Visibility
Cumbrae Fish Farm**

Project
Cumbrae Fish Farms

Client

Drawing No.	Date	Revision	Drwn.	App'd
117038-D-01	23.10.17	0.1.0	BL	JT

ash

0km 1km 2km
SCALE 1:50,000

BIOMASS MODELLING REPORT

Proposed Great Cumbrae Finfish Pen Site, Clyde Estuary

Prepared for

Dawnfresh Farming Ltd

Bothwellpark Industrial Estate
Uddingston
Lanarkshire
G71 6LS
Scotland



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Quality Assurance

The data used in this document and their input and reporting have undergone a quality assurance review which follows established TransTech Ltd procedures. The information and results presented herein constitute an accurate representation of the data collected.

TransTech is registered with SEPA for marine pen site Biomass (Ref: AMMR08v02) and Chemical discharge modelling (Ref: AMMR08v01).

Document Details

Author:



Issue Date: 29 November 2018

Issue No: 2018v1

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List of Abbreviations

ADCP	Acoustic Doppler Current Profiler
ATT	Admiralty Total Tide
AZE	Allowable Zone of Effects
CD	Chart Datum
DFL	Dawnfresh Farming Ltd
EQS	Environmental Quality Standards
GMT	Greenwich Mean Time
mCD	Metres below Chart Datum
MSL	Mean Sea Level
PE	Pen Edge
SEPA	Scottish Environment Protection Agency

1. Summary

1. This report has been prepared in order to meet the specific requirements of the Scottish Environment Protection Agency (SEPA) for the assessment of applications for biomass consent for salmonids held in marine pens.
2. The predictive model, AutoDEPOMOD, was used to determine the Allowable Zone of Effects (AZE) footprint, the maximum allowable biomass at the proposed Great Cumbrae pen site in compliance with the Environmental Quality Standards (EQS) set by SEPA.
3. The mid-range speeds observed at the site during a 90 day ADCP deployment were used in the modelling. The mid-range values were used as these will be more representative of general conditions at the site. They also allow sample transects and stations to be determined for typical conditions at the site.
4. For the mid-range dataset AutoDEPOMOD predicted a benthic pass for a biomass consent of 2500.0 tonnes.

Benthic Pass =	2500.0 T
Stocking Density =	13.6 kg/m ³

2. Introduction

This report has been prepared in order to meet the specific requirements of the Scottish Environment Protection Agency for the assessment of applications for biomass consent. The biomass must comply with the EQS that is in place to protect the marine environment.

This report describes the results of predictive modelling for the AZE footprint and the maximum permissible biomass at the Great Cumbrae site.

The hydrographic data used in the modelling was provided by Dawnfresh Farming Ltd (DFL). A hydrographic report has been prepared by DFL and is understood to be submitted to SEPA along with this report.

The methods described in this report closely adhere to those set out in Annex H of the SEPA Fish Farming Manual (2005), and the results are reported to satisfy consent application requirements.

3. Great Cumbrae site information

Site details

Site name: Great Cumbrae
Location: Clyde Estuary

Pen group details

Group centre position: 218262.2 E, [REDACTED] N
NW pen centre position: 218286.1 E, 655095.6 N
Number of pens: 10
Reported pen group configuration: 2 x 5
Pen dimensions: 120 m circumference circles
Net depth: 16.0 m
Grid size (x by y): 75 m x 65 m
Pen group orientation: 201.2°

Hydrographic data

Current meter position: 218270.2 E, [REDACTED] N
(12.0 m from group centre)
Minimum depth recorded by ADCP + 0.5 m for frame: 37.57 m
Sub surface cell: 32.92 m above seabed
Selected pen bottom cell: 21.92 m above seabed
Near bed cell: 2.92 m above seabed
Current meter averaging interval: 20 min
Record used for modelling (mid-range dataset): 15 days (29/10/17 09:47 to 13/11/17 09:47 GMT)

Additional data

Correction from Magnetic to Grid N: -0.37°
Mean tidal level at site: 1.99 m (Millport)

4. Hydrographic data

The dataset used in the modelling was collected over a 15 day period which incorporated both the spring and neap components of the tidal cycle. Data were collected at 20 minute intervals and copied into the temp-20min-HGv3.xls spreadsheet to generate the .dat files required by AutoDEPOMOD. Dates and times of spring and neap high waters (table 1) were determined using the Admiralty Total Tide software (ATT). Predictions were obtained for Millport (55°45'N 4°56'W), the closest secondary port to the proposed site.

Table 1. Spring and neap tides

Tide	State	Date	Time (GMT)	Level above CD
Spring	HW	06/11/2017	01:06	3.6 m
Neap	HW	12/11/2017	06:59	2.8 m

In accordance with SEPA modelling guidelines, current meter records to be used must start at midday (GMT) on the day of the intermediate-spring and intermediate-neap tide. The date and time of the intermediate tides used in the hourly averaged records (temp-20min-HGv3.xls files) are provided in table 2.

Table 2. Intermediate spring and intermediate neap tides

Tide	Date	Time (GMT)	Hourly record
Predicted intermediate-spring	03/11/2017	12:27	123
Predicted intermediate-neap	10/11/2017	12:27	291

Admiralty Total Tide Mean Sea Level (MSL) at the site is Chart Datum + 1.99 m. The raw current meter direction data were corrected from magnetic north to grid north by subtracting 0.37° from the magnetic north direction data.

The current meter data is summarised below:

Table 3. Current meter data summary

Period	Cell	Mean speed (m/s)	Residual speed (m/s)	Residual direction (° Grid N)
29/10/17 09:47 to 13/11/17 09:47 GMT	Sub surface	0.194	0.050	231.4
	Pen bottom	0.157	0.063	219.2
	Near bed	0.110	0.026	235.6

5. AutoDEPOMOD

5.1 Site set-up

A new project was created in AutoDEPOMOD (v2.0.52, 17-Aug-2005) and named Great_Cumbræ_2018v1-M. All of the relevant bathymetric and current meter files were set up in their respective directories and the pen information was entered into the corresponding FFMTv3.0.xls file. Pen positions and orientations were then checked by looking at the AutoDEPOMOD profile to ensure that they were in the correct position.

5.2 Model grid generation

The grid limits were set to 217760 E to 218760 E and 654440 N to 655440 N.

The .csv and an appropriate .ini file was saved into the \depomod\gridgen folder, as required by AutoDEPOMOD to generate the grid over which the pens would be laid. The grid was then generated with a cell size of 25 m and is shown in figure 1.

2324 depth measurements fall within the modelled grid (figure 2). These along with 489 depths bounding the grid and chart contours were used to create the Great_Cumbræ_2018v1-M.csv file. The recorded depths and their conversion to Chart Datum are provided in Great_Cumbræ_2018v1-M/Bathymetry.

5.3 Benthic modelling

Run details used for biomass consent modelling:

- No. of particles = Initial run 1 and refine at 10
- Convergence value = 1 tonnes
- Neap-Spring with automatically redo using Spring-Neap

Benthic Modelling Parameters:

- Equally-distribute Biomass = ON
- Stocking Density = 13.6354 kg/m³
- Pen Volume Adjustment = 1

A maximum biomass of 2500.0 tonnes was specified for the modelling by setting the stocking density to 13.6354 kg/m³. The model iterated to a MAX prediction of 2500.0 tonnes for the neap-spring and spring-neap runs respectively (Runs 2 and 3). The run with the smallest area of impact at the 30 ITI EQS was Run 3 (spring-neap).

The maximum feed input for Run 3 (figure 1) was defined by the model as 17500.0 kg/day. The 80% solids area was predicted as 56208 m² with a flux in the area of 410 g/m²/yr.

At the 2500.0 tonnes biomass, the pen area equivalent contour flux was 1686 g/m²/yr, at a mean ITI of 9.3 with a pen area of 34901 m². The benthic sampling area, where the ITI = 30.0, showed a flux of 191.8 g/m²/yr inside an area of 62852 m². A summary of the results can be found in the Great_Cumbræ_2018v1-M_marine_sum_v3.xls Benthic Worksheet in appendix 1.

6. Transects and sample stations

Primary and spare sampling transects were created for the site (tables 4 and 5) using Benthic Run 3.

Details of the primary transect:

Transect start co-ordinates (PE)	218165.8 E	654800.5 N
	55 45.1386 N	04 53.9355 W
Transect bearing and length	212.0° Grid North and 125.0 m	
Depth (PE)	30.5 mCD	

Table 4. Details and position of the three selected sample stations along the primary transect

	1st Station (EQS-10m) S2	2nd Station (EQS) S1	3rd Station (EQS+10m) S3
NGR Easting	218123.2	218117.8	218112.5
NGR Northing	654732.4	654723.9	654715.4
Latitude	55 45.1010	55 45.0963	55 45.0916
Longitude	04 53.9735	04 53.9783	04 53.9830
Distance from PE (m)	80.4	90.4	100.4
Depth (mCD)	30.6	29.6	29.3
Modelled ITI	28.3	30.0	36.2

Details of the spare transect:

Transect start co-ordinates (PE)	218228.1 E	654775.9 N
	55 45.1267 N	04 53.8751 W
Transect bearing and length	205.0° Grid North and 125.0 m	
Depth (PE)	33.3 mCD	

Table 5. Details and position of the three selected sample stations along the spare transect

	1st Station (EQS-10m) S5	2nd Station (EQS) S4	3rd Station (EQS+10m) S6
NGR Easting	218201.0	218196.8	218192.5
NGR Northing	654717.9	654708.8	654699.8
Latitude	55 45.0949	55 45.0899	55 45.0850
Longitude	04 53.8986	04 53.9023	04 53.9060
Distance from PE (m)	64.1	74.1	84.1
Depth (mCD)	31.9	32.0	32.0
Modelled ITI	24.9	30.0	40.9

The position of both the primary and spare transects and the relative sample stations in relation to the site are shown in figures 3 and 4.

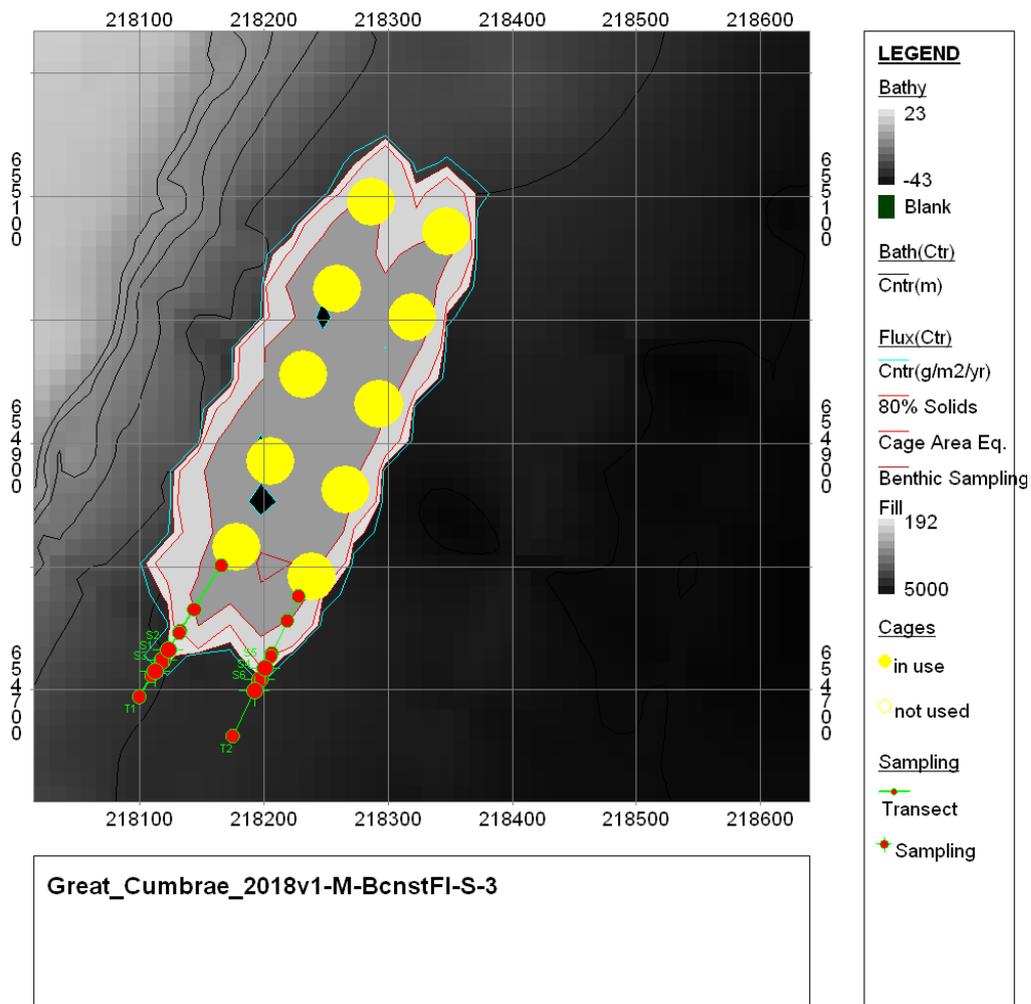


Figure 3. Plot showing primary and spare transect positions and the respective sample stations

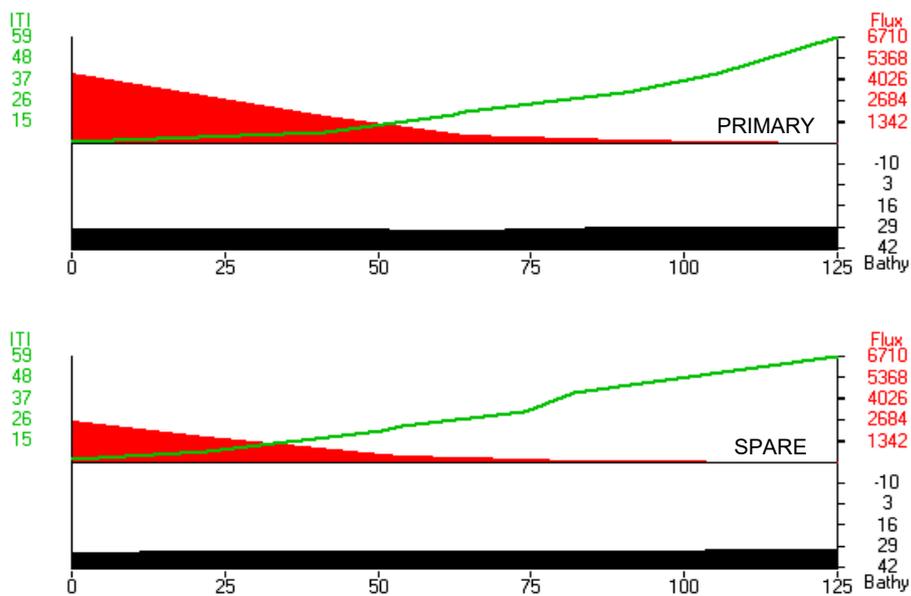


Figure 4. Cross sections of the primary and spare transects

The benthic sampling has been packaged in Great_Cumbrae_2018v1-M\depomod\mapping\XLS\Great_Cumbrae_2018v1-M-BcnstFI-S-3_000.xls.

APPENDIX 1

Great_Cumbrae_2018v1-M_marine_sum_v3.xls (Version 3.13) Benthic Worksheet

Fish farm site at : Great Cumbrae, Clyde Estuary	Receiving water : <input style="width: 100%;" type="text"/>
License No. : <input style="width: 100%;" type="text"/>	Team area : <input style="width: 100%;" type="text"/>

Current data summary	LEVEL	Mean	%<=0.09 m/s	Major axis	major amp./ minor amp.	Residual speed	Residual direction	Vector av. residual
	Sub-surface	0.19	21%	210	3.15	0.050	231	0.046 m/s at 226 degrees
	Cage-bottom	0.16	30%	210	3.32	0.060	219	
	Near-bed	0.11	50%	205	2.36	0.030	236	

Cage group corners		NGR	
		Easting	Northing
Corner position #1:		218347 m	655072 m
Corner position #2:		218238 m	654792 m
Corner position #3:		218178 m	654816 m
Corner position #4:		218286 m	655096 m

These are corner pen centre positions

Organic waste	Flux [g/m ² /y]	ITI	Area [m ²]
Peak biomass : 2500.0 t	410	22.9	56208
Modelled biomass : 2500.0 tonnes	1686	9	34901
Cage depth : 16.0 m	192	30	62852
Stocking density : 13.6 kg/m ³			
Release of solids : #####			
Mass balance : 130,565 kg	Affected area : <input style="width: 100%;" type="text" value="4.6 km2"/>		
Export : 890,251 kg/yr			
Receiving area : 10.0 km ²			

Site Specific Sampling - 1		Important note			
Cage edge station	Transect start	AZE-10m	AZE	AZE+10m	
NGR Easting: 218166 m	218166 m	218123 m	218118 m	218113 m	
NGR Northing: 654801 m	654801 m	654732 m	654724 m	654715 m	
transect direction/distance: 209.6 degT	212.0 degG	80 m	90 m	100 m	
depth (CD): 30.5 m	30.5 m	30.6 m	29.6 m	29.3 m	
	modelled ITI:	28.3	30.0	36.2	

Site Specific Sampling - 2		Transect start	AZE-10m	AZE	AZE+10m
NGR Easting: 218228 m	218228 m	218201 m	218197 m	218193 m	
NGR Northing: 654776 m	654776 m	654718 m	654709 m	654700 m	
transect direction/distance: 202.6 degT	205.0 degG	64 m	74 m	84 m	
depth (CD): 33.3 m	33.3 m	31.9 m	32.0 m	32.0 m	
	modelled ITI:	24.9	30.0	40.9	

Modelled by : Garret Macfarlane	date : 29/11/2018
SEPA (MS:H-M) Approved by : <input style="width: 100%;" type="text"/>	date : <input style="width: 100%;" type="text"/>
SEPA (MS:M-Eco) Approved by : <input style="width: 100%;" type="text"/>	date : <input style="width: 100%;" type="text"/>

Not Yet Approved by SEPA

NB: Receiving area input at 10 km² but is significantly larger.

EIA TEMPLATE FOR SCREENING & SCOPING

MARINE PEN FISH FARMING

NOTE: Completion of this Screening & Scoping template must comply with the requirements of the Environmental Impact Assessment (Scotland) Regulations 1999 (as amended). It is the responsibility of the developer and, ultimately, the relevant planning authority to ensure that it does.

PROPOSAL *(To be completed by the developer)*

Project Name: Cumbrae
Location: Great Cumbrae, Firth of Clyde
Date: 31/01/2019
Signed:
Position: Environmental Coordinator
Company: Dawnfresh Farming Ltd.
Address: Bothwellpark Industrial Estate, Uddingston, Lanarkshire, G71 6LS
Email: peter.macdougall@dawnfresh.co.uk
Tel: 07881922523

We request an EIA screening/scoping opinion. Details of the project are attached.

We provide additional material which we believe will be of assistance to statutory consultees when considering EIA Screening and Scoping – **Annex 1**. These are:

Attachment 1 Cumbrae Predator Plan
Attachment 2 Cumbrae Escapes Contingency Plan
Attachment 3 DFF Biosecurity Procedure
Attachment 4 Cumbrae Zone of Theoretical Visibility
Attachment 5 Modelling Report

(Add more references if necessary, by cutting and pasting from above).

PURPOSE OF THIS TEMPLATE

Before completing this template you should familiarise yourself with Environmental Impact Assessment: Practical Guidelines Toolkit for Marine Fish Farming, Planning Advice Note (PAN) 58 *Environmental Impact Assessment*, and circular 8/2007 (links below to these documents).

<http://www.sarf.org.uk/Project%20Final%20Reports/SARF024%20-%20Final%20Reports%20and%20Templates/EIA%20Guidelines%20FINAL+%20Templates.pdf>

<http://www.scotland.gov.uk/Publications/1999/10/pan58-root/pan58>

This EIA Screening & Scoping Template is primarily designed to assist the work of the relevant planning authority and the statutory consultees.

The **developer** should initiate the use of this template by completing the proposal box and sections 2-5 and by attaching any additional material in Annex 1 of this template. This should then be forwarded to the relevant planning authority.

The **relevant planning authority** continues the use of this template as indicated in the appropriate sections.

FILLING IN THE TEMPLATE

At the points where you wish add text, insert the cursor over the grey 'text form field'. Simply start typing. Text should wrap down the page, and main form boxes will expand to accommodate. Please attempt to keep responses brief and factual. **Save your version of the master file with your own unique filename.**

For 'check boxes', double click when the cursor is on the box, and click the '*default value – checked*' option.

Relevant Planning Authority Request to Statutory Consultees

Planning authorities should forward this template to statutory consultees immediately upon receipt from the developer

We have received this request for an EIA Screening opinion, and if necessary a Scoping opinion, from the developer named at the start of the template. Information on the proposal and supporting details are attached.

I would be grateful if your organisation or agency would provide your advice (at the relevant part of sections 5 and 6) to assist us with our decision on the screening (and if relevant scoping) opinion.

We remind statutory consultees that our interest is in assessing whether the development will be likely to have **significant** effects on the environment by virtue inter alia of its nature, size or location.

You should advise that:

- You consider that the proposed development will be likely to have “significant effect” on the environment by virtue of its nature, size or location (refer to Annex A & B of the Planning Circular 8/2007, and to the EIA Guidance published by Scottish Government). If so, please provide a clear description of the breadth and extent of the supplemental environmental information to be provided in the form of an Environmental Statement.

or

- You consider that the proposed development is not likely to have a “significant effect” on the environment, but you request that certain additional information is submitted in support of any future planning application for the proposed development.

or

- As far as your interests are concerned you are content for the proposal to proceed without any further requirements for environmental information.

Your response is requested by *[allow six weeks for combined screening/scoping]*

If I do not hear from you within the stated timescale, I shall issue any opinion on the assumption that you have no comments to make.

Electronic signature:

Name:

Planning authority:

Telephone no:

Date:

Insert the appropriate planning application form on the next page.

Only complete, at this stage, the boxes that relate to identification of the developer, and details about the proposed development.

Do not complete, at this stage, the boxes that relate to later stages of formal planning application, i.e. Land Ownership, Fees and signed Declarations.

Note: provision is made for insertion of plans, maps and diagrams after the pasted-in Planning Application form (see Section 2).

Planning Applications Forms can be located at the website links shown below:

Comhairle Nan Eilean:

<http://www.w-isles.gov.uk/planapps/planforms.htm>

Highland Council:

<http://www.highland.gov.uk/NR/ronlyres/D2A1FF38-0E12-4BBF-8366-B975CBEF5104/0/FishfarmingApplication.pdf>

Argyll and Bute Council:

https://www.argyll-bute.gov.uk/sites/default/files/planning-and-environment/marine_fish_farm_planning_application_form_may_2012.pdf

Orkney Islands Council:

http://www.orkney.gov.uk/nqcontent.cfm?a_id=9823&tt=orkneyv2

Shetland Council:

<http://www.shetland.gov.uk/planningcontrol/applicationforms/default.asp>

North Ayrshire Council:

<http://www.north-ayrshire.gov.uk/na/FormsDB.nsf/index/AD47EA88A616B6838025700B004B19BD?OpenDocument&MenuType=Environment&DocDisplay=NoDoc&DFBC=Planning&CatLevel=1>

INSERT APPROPRIATE PLANNING APPLICATION FORM HERE:



North Ayrshire Council
Comhairle Siorrachd Àir a Tuath

OFFICE USE ONLY REG. No
DATE OF RECEIPT
FEE DEPOSITED
FEE DUE
FEE EXEMPTION CLAIMED

Please Read The Notes For Guidance Before Completing This Form

APPLICATION FOR PLANNING PERMISSION

TOWN & COUNTRY PLANNING (SCOTLAND) ACT 1997, AS AMENDED
BY THE PLANNING ETC (SCOTLAND) ACT 2006

1 I / WE APPLY FOR (please tick relevant box)

Full Planning permission Planning permission in principle (PPP)

Approval of matters specified in conditions (MSC) Modification of Planning Condition(s)

Reference number(s) of previous planning applications (s) (if known)

Reference numbers (s) of Proposal of Application Notice (s) (if applicable)

Have there been any pre-application discussions with Planning? Yes No

If yes, what type:
Telephone Letter Meeting Email

Pre-applications officer's name:

2 THE APPLICATION IS CONSIDERED TO BE A:

National Development Major Development Local Development

3 DESCRIPTION OF PROPOSED DEVELOPMENT

Dawnfresh Ltd. proposes to develop a fish farm in the waters off the coast of Great Cumbrae on the south eastern side opposite the Hunterston Deepwater Port. The development would consist of 10 x 38m diameter sea pens and an automated feed barge. The pens would be placed inside a mooring grid 375m long by 150m wide. The proposal would create 6 full time and 2 part time jobs with additional employment likely through workboats and site servicing.

4 ADDRESS OF PROPOSED DEVELOPMENT

The shorebase location and therefore the postal address will be determined once a final application has been submitted and a suitable site identified.

5 DETAILS OF APPLICANT

Name Dawnfresh Farming Ltd.

Address Bothwellpark Industrial Estate
Uddingston

Postcode G71 6LS

Email [REDACTED]@dawnfresh.co.uk

6 DETAILS OF AGENT (if applicable)

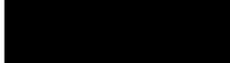
Name

Address

Postcode

Email

Tel. No



Tick box if applicant is an Elected Member/Planning Officer involved in the Planning Process at North Ayrshire Council or partner / friend / relative of either.

Tel. No

Tick box if agent is an Elected Member/Planning Officer involved in the Planning Process at North Ayrshire Council or partner / friend / relative of either.

7 EXISTING USE OF LAND AND/OR BUILDINGS

The site would be a new farm where no farm currently exists.

Date and reference of any previous permission(s) (if known)

8 RESIDENTIAL DEVELOPMENT

Number of dwellings proposed n/a

Site Area (hectares)

9 COMMERCIAL / INDUSTRIAL DEVELOPMENT (complete as relevant)

	Existing	Proposed
External Size of Building	sq.m	sq.m
Site Area (gross)	ha	ha
Manufacturing/Production Area	sq.m (internal)	sq.m (internal)
Storage Area	sq.m	sq.m
Office/Ancillary Area	sq.m	sq.m
Retail	sq.m	sq.m
Hours of Operation	0800 – 1800	

10 PROPOSED ACCESS ARRANGEMENT (tick relevant box(es))

	Vehicular	Pedestrian
Do you intend to:		
Use an existing access	<input type="checkbox"/>	<input type="checkbox"/>
Alter an existing access	<input type="checkbox"/>	<input type="checkbox"/>
Form a new access from a public road	<input type="checkbox"/>	<input type="checkbox"/>
Close an existing access	<input type="checkbox"/>	<input type="checkbox"/>

11 PARKING

Number of existing parking spaces on site

Number of additional parking spaces

12 FINISHING MATERIALS ("see plan" not acceptable)

Outside Walls	materials	
	colours	
Roof	materials	
	colours	
Boundary (walls, fences, etc)	materials	Height In Meters
	colours	
Windows	materials	
	colours	
Hard Surfacing	materials	
	colours	

13 LANDSCAPING (tick as relevant)

Do you propose to:

Remove any trees

Carry out work to any trees, shrubs or hedges

Landscape

(a schedule of landscaping should be submitted with application)

14 PROPOSED DRAINAGE/WATER CONNECTIONS (tick relevant box(es))

Surface Water to public sewer to watercourse/soakaway

Foul Drainage to public sewer to septic tank

watercourse soakaway

Suds

Water public supply private supply

15 HAZARDOUS MATERIALS (tick as relevant) yes no

Do the proposals involve any storage or manufacture of hazardous materials (if so supply details)

16 ARRAN (to be completed for applications on the island only)

I have lodged a copy of the application form and a set of plans at (tick box):

The Arran Local Office, Shore Road, Lamlash, Isle of Arran.

MILLPORT (to be completed for applications on the island only)

I have lodged a copy of the application form and a set of plans at (tick box):

The Millport Local Office, Garrison House, Millport.

C1 CERTIFICATE 1 - OWNERSHIP

I HEREBY CERTIFY THAT: **Tick relevant box**

No person other than the applicant was an owner of the land 21 days before the date of this application.

The applicant has given notice, using Notice Number 1, to all persons (as listed below) who, 21 days before the date of this planning application owned any part of the land to which this application relates.

OWNERS NOTIFIED

Name	Address	Date of service of Notice No 1

C2**CERTIFICATE 2 - AGRICULTURAL TENANTS**

I FURTHER CERTIFY THAT:

Tick relevant box

21 days before the date of this planning application, none of the land to which the application relates constituted or formed part of an agricultural holding.

The applicant has given notice of this planning application (using Notice Number 2), to every person listed below who, 21 days before the date of this planning application, was a tenant of an agricultural holding, any part of which formed part of the land to which the application relates.

AGRICULTURAL TENANTS NOTIFIED

Name	Address	Date of service of Notice No 2

DECLARATION

Please check that you have completed questions and certificates correctly. You must now sign the declaration below:

I HEREBY CERTIFY THAT THE INFORMATION GIVEN BY ME IN THIS FORM IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE.

Signature of applicant/agent (delete as appropriate)

Date

IMPORTANT: ANYONE WHO KNOWINGLY OR RECKLESSLY MAKES A FALSE DECLARATION IS LIABLE, ON CONVICTION, TO A FINE UP TO £2,000.

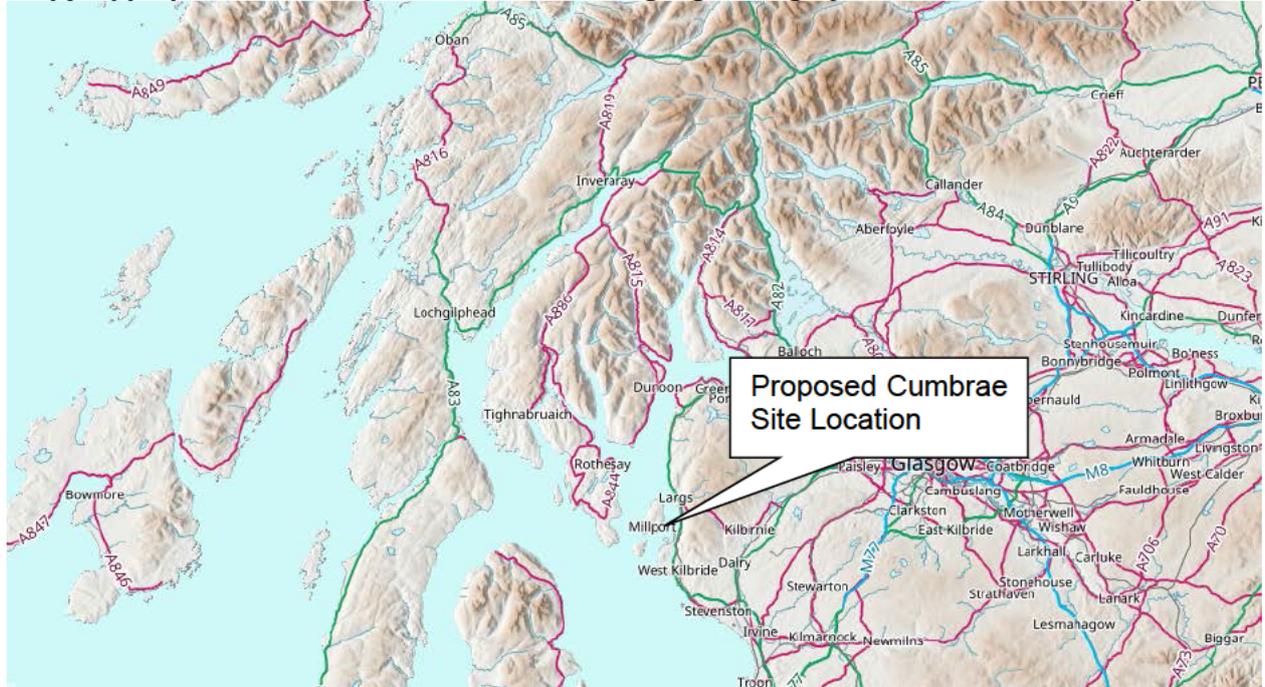
Further Information

3 ADDITIONAL DETAILS OF THE PROPOSAL (To be completed by the developer)

The Developer should complete this Section, and refer particularly to the relevant Note in the Planning Application Form Guidance.

Insert a map showing location of farm, or range of location options if the development is for a new farm. If possible, also indicate the location of the relevant shore base on the map, and if known, the locations of other fish farm sites in the area.

'Copy' appropriate sized map from relevant file, highlight the grey form field below, and 'paste'



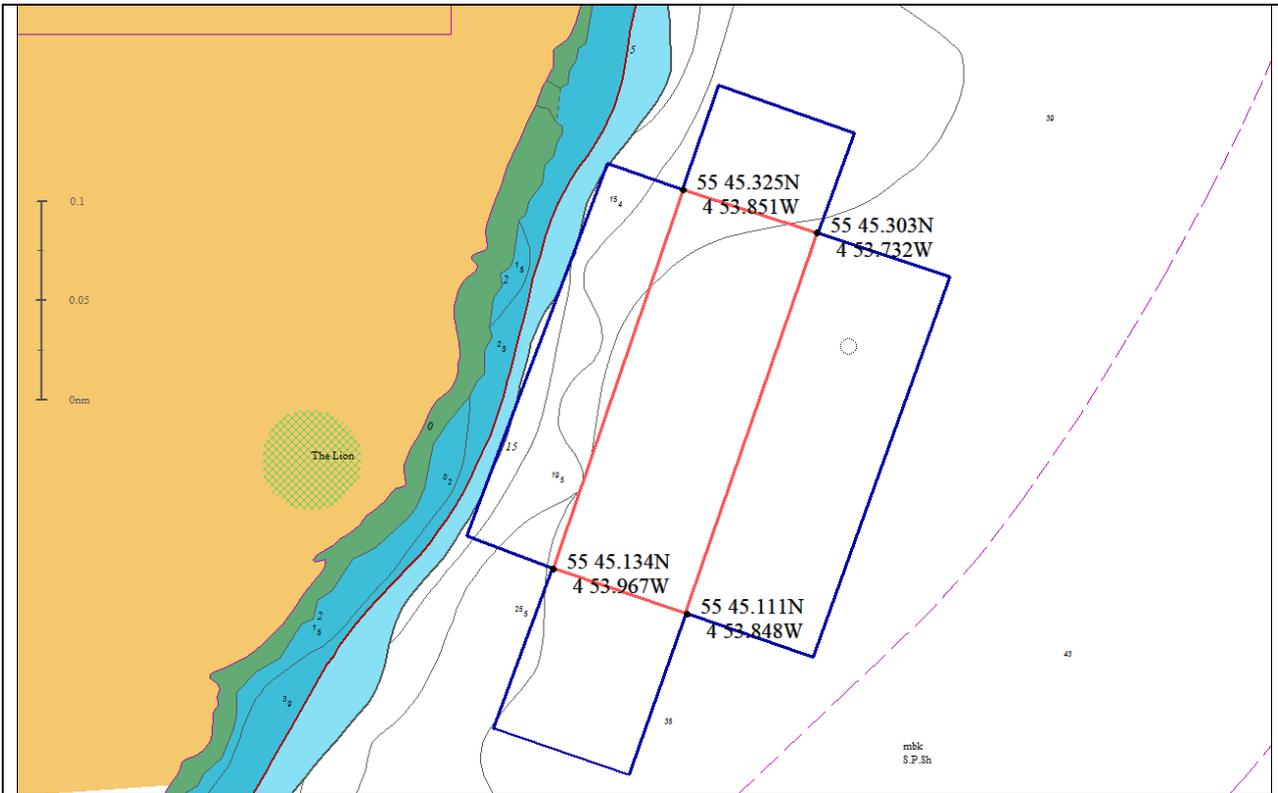


Figure 3.3: Corner coordinates of proposed Cumrae site; Red = grid matrix, Blue = subsea mooring area.

Insert any other relevant graphical information.

'Copy' appropriate sized map from relevant file, highlight the grey form field below, and 'paste'

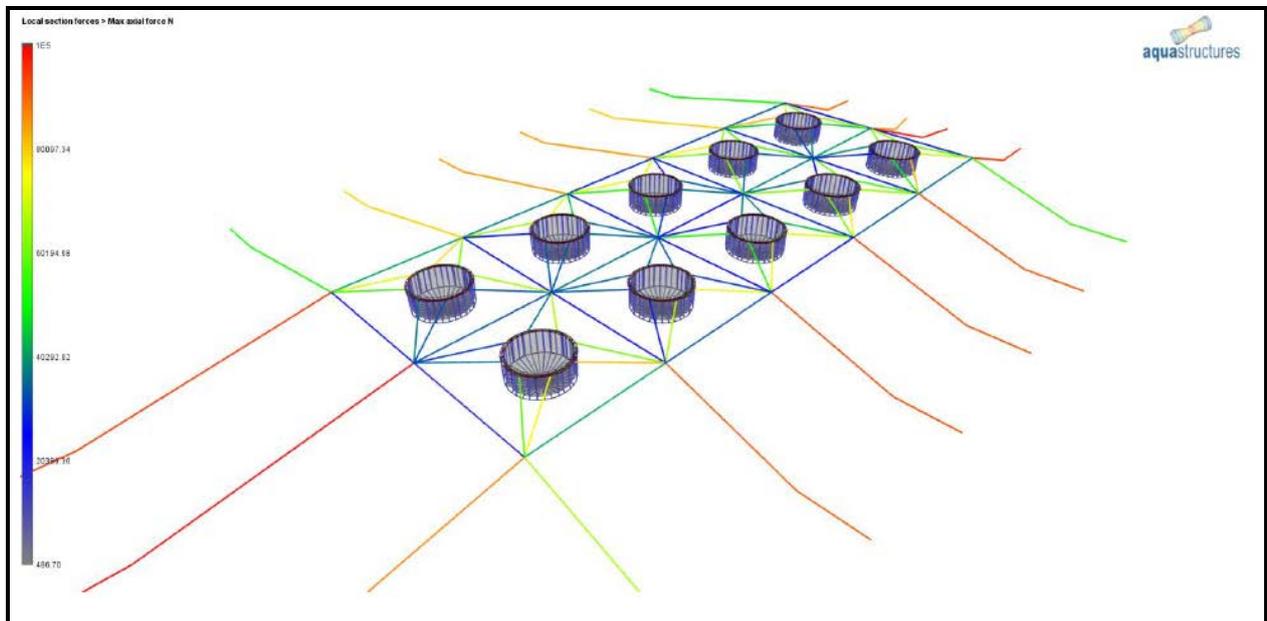


Figure 3.4: Example of mooring grid configuration

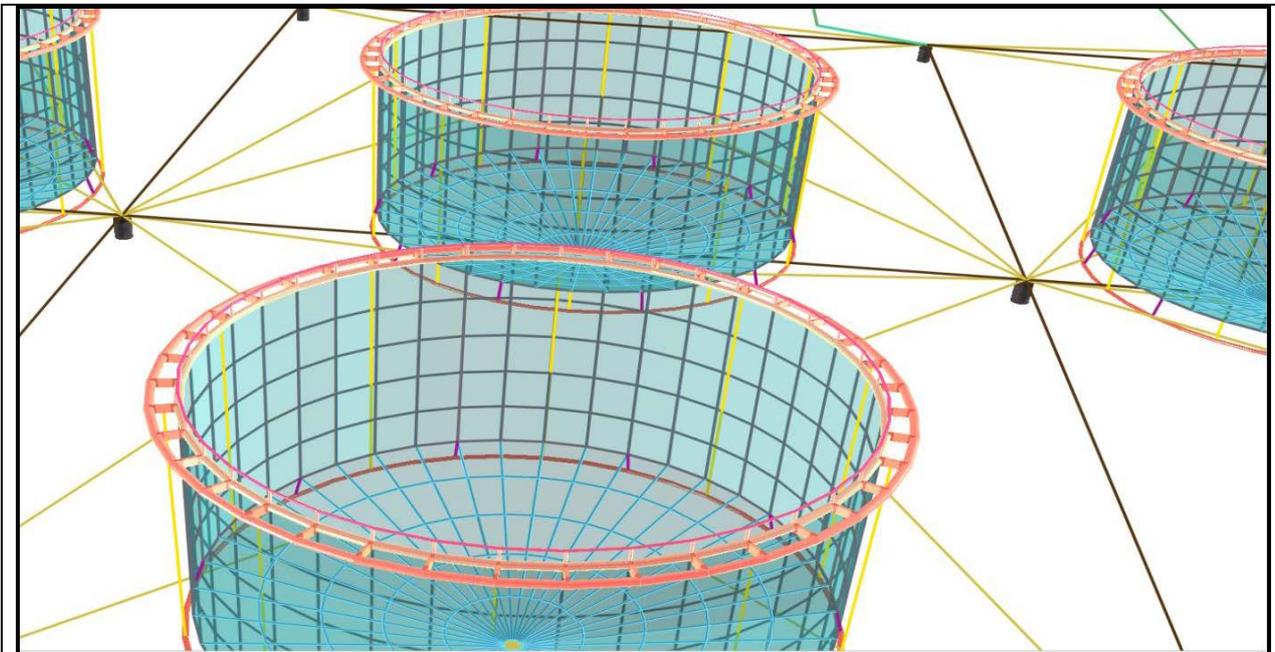


Figure 3.5: Example of a site grid and net set up

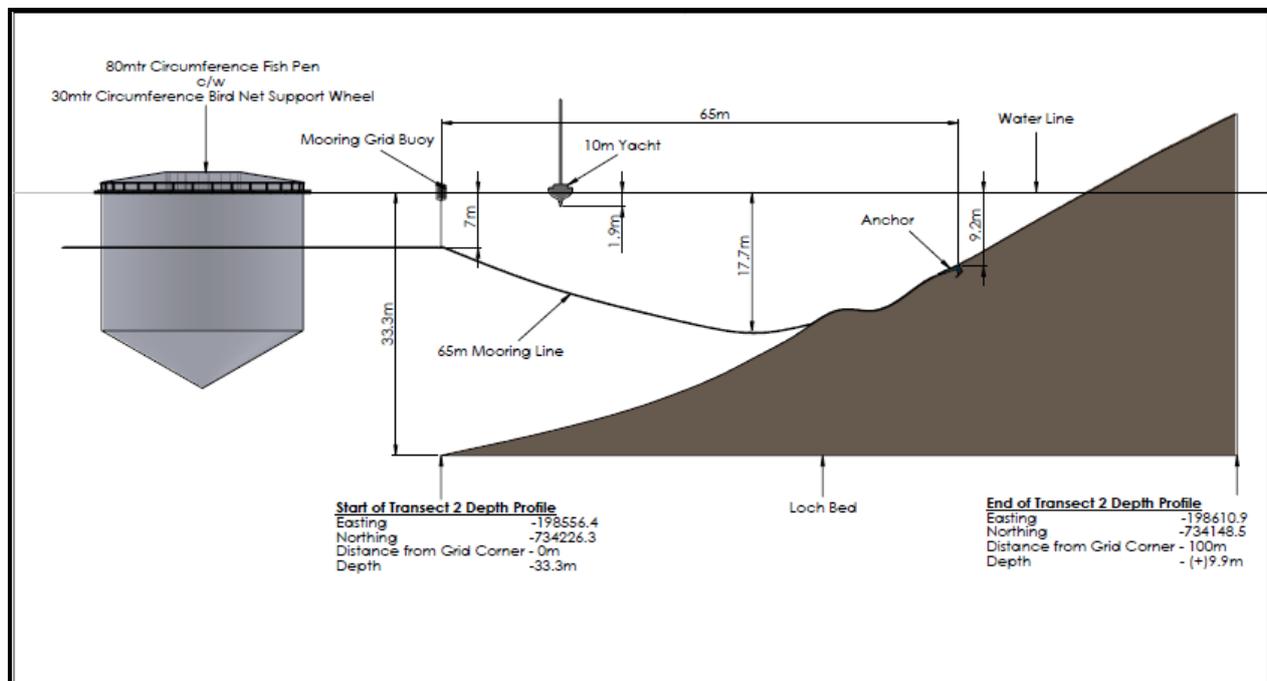
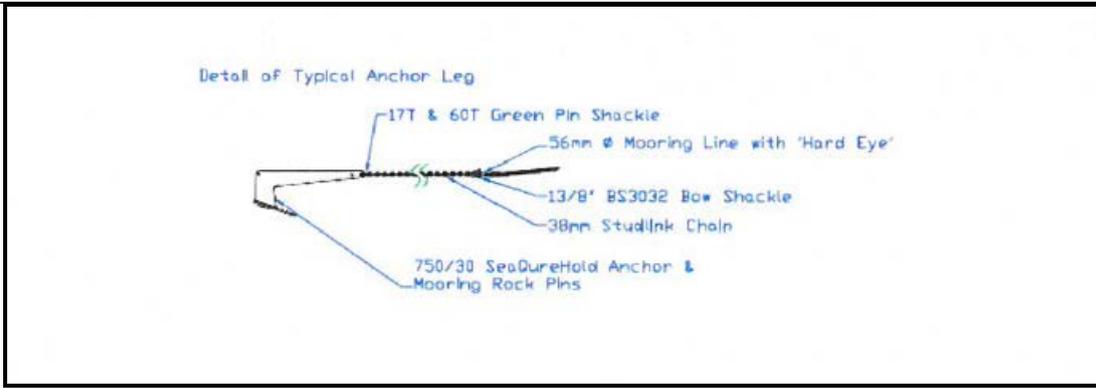


Figure 3.6: Example of mooring component working depth



3.7: Example of typical anchor leg

Insert any other relevant textual information concerning either the design or the operational characteristics of the proposed development.

Dawnfresh Farming Ltd. is proposing to establish a new trout farm in the waters of the Firth of Clyde, off the south east coast of Great Cumbrae, opposite Hunterston Deepwater Port. The proposal includes the installation of 10 x 38m diameter circular cages with a maximum standing biomass of 2,500T. The proposed site will be placed in a 75m x 65m mooring matrix and it will be serviced by a feed barge with the capacity to hold at least 200T of trout feed. This site will be of key importance to a proposed new production area on the Firth of Clyde. The site will be operated as part of a cluster of farms in the Firth of Clyde area for which Dawnfresh is seeking permission for at this time. The development will enable Dawnfresh Farming Ltd. to establish significant shorebased facilities in the Firth of Clyde which will allow local harvesting in close proximity to the Dawnfresh processing plant in Uddingston. As part of the development DFF proposes to establish a shorebase on Great Cumbrae and to employ a local workforce to service the site. The site will be serviced by boat from the shorebase, the location of which will be confirmed subject to the identification of a suitable site on the island.

Initial Assessment of Presence of Environmental Receptors

The **developer** should complete section 4.1 to 4.4 to the best of their ability and knowledge. Links to important websites concerning these sections can be found in the Practical Guidelines, Section 6.1.

4.1 Sensitive Areas (see <http://www.snh.org.uk/snhi/>)

Is the proposed development located in or adjacent to any of the following:

- | | |
|---|-------------------------------------|
| Site of Special Scientific Interest | <input checked="" type="checkbox"/> |
| Land subject to Nature Conservation Orders | <input type="checkbox"/> |
| International Conservation Sites (e.g. SAC etc) | <input type="checkbox"/> |
| National Scenic Areas | <input type="checkbox"/> |
| World Heritage Sites | <input type="checkbox"/> |
| Scheduled Monuments | <input type="checkbox"/> |
| National Park | <input type="checkbox"/> |

4.2 FRS Locational Guidelines (see <http://www.marlab.ac.uk>)

Ensure that the most recently published Locational Guidelines have been consulted.

In terms of Locational Guidelines, is the location:

- | | |
|---------------|-------------------------------------|
| Category 1 | <input type="checkbox"/> |
| Category 2 | <input type="checkbox"/> |
| Category 3 | <input type="checkbox"/> |
| Uncategorised | <input checked="" type="checkbox"/> |

4.3 Sensitive Species or Habitat (see <http://www.ukbap.org.uk>, & <http://www.marlin.ac.uk>)

Is the proposed development located near to any identified sensitive species or habitat?

Identify:

The proposed site is located to the south of Ballochmartin Bay SSSI, and opposite the Southannan Sands SSSI.

4.4 Any other relevant environmental issues (e.g. *human interaction; noise, pollution, cultural heritage, cumulative impact, air quality*)

Identify:

Benthic Impact is always an important consideration of any aquaculture development
Interaction with wild salmonids will be of great importance
Navigation will be a key consideration due to the proximity of the Hunterston Deepwater Port
Landscape and Visual Impact is a key consideration of this planning application

5 SCREENING & SCOPING CHECKLIST *(To be completed by the developer initially, and statutory consultees subsequently)*

The relevant planning authority might wish to take account of the following potential impacts of fish farming in relation to existing regulatory regimes. In some cases the impacts are generally dealt with by other regulations and it is not the remit of the planning authority to secure objectives achievable under other legislation or powers. However it should be noted that the issues controlled under other legislation may be material considerations to be taken into account by the planning authority.

Where a statutory consultee is also the regulator, they should clearly state this and briefly summarise the scope of their powers to regulate the impact in question.

IMPACT	EXISTING REGULATORY REGIMES
1. Benthic Impacts	Already regulated by SEPA under Controlled Activities Regulations (CAR) and advised by FRS under Locational Guidelines. SEPA is also responsible in cases of presence in or near a Sensitive Area.
2. Water Column Impacts	Already regulated by SEPA under CAR and advised by FRS under Locational Guidelines. SEPA is also responsible in cases of presence in or near a Sensitive Area.
3. Interaction with Predators;	FRS will regulate predator-related containment issues under The Aquaculture and Fisheries (Scotland) Act 2007. It will also be the primary regulator with respect to Sensitive Areas. FRS is not a Regulator in any other regard with respect to predatory species.
4. Interaction with Wild Salmonids	FRS will regulate sea lice management under The Aquaculture and Fisheries (Scotland) Act 2007. It will have ongoing operational control of this aspect of the industry, and a range of tools that it can use to ensure lice numbers are strictly controlled.
5. Impacts upon species or habitats of conservation importance, including Sensitive Sites	All public bodies have a statutory obligation in this regard, and where one particular body is responsible for the specific area of impact on a receptor, its regulatory regime is already ensuring that environmental effects are below the threshold of significance.
6. Navigation, Anchorage, Commercial Fisheries, other non-recreational maritime uses (MOD)	The Scottish Government Transport Directorate regulates navigation safety under Section 34 of the Coast Protection Act.
7. Landscape and Visual Impact Assessment	
8. Noise	
9. Marine Cultural Heritage	
10. Waste Management (non-fish);	
11. Socioeconomic, Access and Recreation	
12. Traffic and Transport	
13. Any other issue	

Project Name: Cumbrae
Location: Firth of Clyde
Other identifier:

Screening & Scoping Checklist
<p>For each of the numbered potential impacts in the left hand column, consideration should be given to the following points:</p> <ul style="list-style-type: none"> A. Will the impact have an effect on any of the receptors or issues identified in sections 4.1 to 4.4 Have all the receptors/issues/effects been identified. Explain. B. Is the impact covered by other regulation? State your reasons for wishing to discuss it further in this document. C. Is there potential for cumulative or indirect impact on an identified receptor. Explain. D. SCREENING ADVICE. Is the impact on receptor(s) likely to have a significant effect. Explain. E. SCOPING ADVICE. If so, what details of additional information required and methodology <p><i>Provide concise information, and refer it specifically to elements A to E where appropriate.</i></p>

IMPACT TYPE	INSERT YOUR COMMENTS IN THE APPROPRIATE ROW
1. Benthic Impacts DEVELOPER	<p>Benthic impact has been identified by the developer as a key issue in the proposed development. In line with current regulation mitigation is offered for this impact.</p> <p>Open sea aquaculture has an impact on the immediate benthic environment beneath the group of pens and in close proximity to fish farm pens. The main components of particulate waste generated by a fish farm are uneaten food and faeces. The amount of solid waste will be minimised at the Cumbrae site through high standards of staff training and careful feeding with the use of feed guides and feedback systems to reduce the feed conversion ratio to its lowest possible level. The use of an automated feed barge will allow feed use to be closely monitored and this will be used in conjunction with a full camera system to allow the feed conversion ratio to be reduced to the lowest possible value. The benthic impact will be regulated by the Scottish Environmental Protection Agency (SEPA) under the Controlled Activities Regulations (CAR). An application for a CAR Licence has been submitted to SEPA for the proposed biomass to allow the benthic impact to be assessed and confirm that the biomass applied for is within the carrying capacity of this location.</p> <p>Waste feed and faeces from aquaculture can result in high inputs of organic carbon in the benthos which can result in an increase in microbial activity in the benthic sediment. The increase in microbial activity can result in the production of toxic</p>

	<p>compounds such as methane or hydrogen sulphide as oxygen is used up at a higher rate. This can result in a change to the chemical condition of the sediment which in turn will impact the in faunal community. Due to these potential changes it is important to carefully monitor, control and mitigate benthic impacts.</p> <p>Benthic impact will be monitored closely at the proposed Cumbrae site. A baseline seabed survey has been undertaken to record, through seabed grab samples and visual survey, the condition of the seabed. Data has been collected on sea conditions and currents for this location over a period of 90 days, this data has been used to run a depositional model which has identified the applied for biomass as sustainable for this site. The model has also predicted an allowable zone of effect (AZE) which is essentially a prediction of the impact that will occur around the site through deposition. Once the site is in operation it will be sampled each cycle based on the output of the depositional modelling. DFF contracts an independent company, Fish Vet Group, to carryout compliance monitoring, the results of all compliance monitoring surveys are supplied to SEPA and the results are made public thereafter by SEPA. In the event of samples returning a positive result the site is allowed to continue to operate at the modelled biomass limit however in the event of a negative compliance sampling result the biomass of the site can be reduced by SEPA.</p> <p>DFF has collected hydrographic data for this location and undertaken modelling using Autodepomod. The results of the modelling demonstrate that this location will be able to support the proposed biomass. The full modelling report has been included in support of this screening and scoping application in order to better inform the planning process and is included as attachment 5.</p>
STATUTORY CONSULTEE	
2. Water Column Impacts	
DEVELOPER	<p>Water column impacts of the aquaculture industry are regulated by SEPA under CAR and advised by Marine Scotland under the Locational Guidelines that estimate the sensitivity of sea lochs to development.</p> <p>As outlined in section 1 above, a CAR licence application has been submitted and the full modelling report has been included in the screening scoping as attachment 5.</p> <p>The Firth of Clyde is an uncategorised body of water therefore open water ECE modelling will be undertaken to show the degree of nutrient enrichment likely to result from the biomass applied for and full details will be provided in the final application.</p>
STATUTORY CONSULTEE	
3. Interaction with Predators	
DEVELOPER	<p>An abundance of wildlife naturally occurs around fish farms and there are many potential predators. Marine fish farms can experience considerable losses to predators if a predator identifies the farm as a viable food source. Attacks by predators can also raise fish welfare and environmental concerns therefore DFF tries to prevent its sites being identified as a food source by employing a range of approved preventative measures.</p> <p>Birds</p>

Tensioned top nets will be used to prevent predation by piscivorous birds. The square mesh of the top nets will be 30mm to reduce the risk of entanglement. Instances of entanglement will be recorded and in the event of these nets being detrimental to bird populations their use will be reviewed. DFF has used top nets of this type and design for many years at its sites on Loch Etive and bird trappings have been rare. Furthermore predation by birds has historically not been a significant problem which suggests that it is unlikely the use of these nets will present a significant issue provided the site is managed well.

To assist management of predatory birds, effective stowage of feed and fish mortalities will be a primary action to reduce the attraction and development of feeding response.

Seals

Seal attacks on finfish farms impact on the environment, salmonid welfare and the financial sustainability of a site. Seals are an accepted predator of farmed fish but the adoption of anti-predator control devices is site specific. Farm managers always endeavour to use the most effective and appropriate deterrent which results in the least impact.

Seals are initially attracted to a farm to graze on fallen stock and then move on to attack livestock. Seals often only take a single bite out of a fish before moving on to another. As a result an attack has the potential to impact many thousands of fish and cause enormous stress on the rest of the fish population. In order to mitigate this DFF focuses on preventing seals from seeing fallen stock at the bottom of nets. This is done through efficient and daily uplift of mortalities in combination with the use of seal blinds to reduce the initial attraction to the farm. Each pen will have a collection system at the bottom of each net which will allow the more regular collection of mortalities. The Lift up system operates by using compressed air to lift mortalities from the base of the net to the surface. The daily collection of mortalities reduces the likely hood of seals identifying the farm as a viable food source. Seal blinds are sections of fine mesh which are connected onto the base of a net to prevent seals seeing fallen stock and reducing the potential for predation.



Figure 3.1: An example of the collection cone of the Lift up system.

All nets used at the Cumbrae site will be Sapphire SealPro nets which offer additional strength and resistance to seal attack. Due to their high stiffness and excellent abrasion resistance, especially when wet, the nets provide resistance to biting by seals and allow a heavier weighting system to be utilised further helping to maintain the shape of the nets. The SealPro nets have a much higher cut resistance than normal polyethylene which reduces the likely hood of a seal gaining access to fish.

Full enclosure predator nets will be considered for use at this site but prior to any deployment a full risk assessment will be undertaken to assess the risk of entanglement of non-target species. Predator nets will only be deployed if the risk to non-target species is sufficiently low. For the entire period of deployment a log will be maintained detailing any non-target species found trapped in the net and their use will be under constant review. The success of full enclosure predator nets is dependent on the hydrographic conditions at the site and being able to maintain good net tension. If tension cannot be adequately maintained predator nets will be removed from the site.

If highly tensioned nets and daily removal of mortalities proves to be ineffective in deterring seals and in the event of full enclosure predator nets being inappropriate for use at the Cumbrae site. DFF will consider the use of Acoustic Deterrent Devices (ADDs). DFF favours the use of triggered devices although the make and model of ADD will be selected on best industry performance at the time and informed by discussion with SNH.

It is accepted that it may not be possible to totally eliminate predation by seals. Should mitigation measures be insufficient to protect fish stocks DFF will consider the humane dispatch of a rogue seal. This is only ever considered as a last resort once all other methods have failed. DFF appreciates that the shooting of any animal is a deeply emotive issue and will endeavour to avoid taking lethal action if at all possible. Should the Farm Manager feel that this is the only option available in response to a specific predation issue then they will have to demonstrate to the Seawater Manager and Farming Director that all other options have been fully exhausted. Only highly trained and licenced private contractors will be used to humanely dispatch a problem seal using a high calibre rifle to minimise suffering and would be conducted in line with the Marine Act (Scotland) Seal Management Licence regulations.

STATUTORY
CONSULTEE

**4. Interaction with
Wild Salmonids**

DEVELOPER

Interactions with wild salmonids has been identified by the developer as a key issue in the proposed development. In line with current regulation additional mitigation is offered for this impact.

As with any kind of farming the health and welfare of livestock are of key importance. Trout, like any other animal are subject to possible health issues and these must be carefully controlled. DFF undertakes a high degree of staff training and continuous development to ensure that all staff have the necessary expertise to identify health issues at the earliest possible stage. Dawnfresh organise site staff with a focus on fish health therefore as well as having a highly trained team who are able to identify health issues they are supported by a designated Health Monitor who is supported by the company veterinarian. The proposed Cumbrae site will focus on keeping lice levels at the lowest achievable level through regular lice counts and thresholds will be set

	<p>beyond those required through the Code of Good Practice (CoGP). DFF has undertaken this method of lice control at its other seawater sites and it has been very effective in reducing sea lice burden across the whole site as issues are addressed at the earliest possible stage.</p> <p>There are many methods of managing sea lice numbers at fish farms:</p> <ol style="list-style-type: none"> 1. Control Through Good Husbandry 2. Mechanical Control 3. Freshwater Treatments 4. Medicinal Control 5. Biological Control* <p><i>*the use of cleaner fish on trout is not currently permitted by Marine Scotland though DFF believes there is scope for challenging this position in the future.</i></p> <p>DFF is confident that it will have the necessary options available and expertise required to control lice levels at the new site.</p> <p>A site specific Escape Contingency Plan has been included with this screening scoping application as attachment 2. DFF internally review and revise procedures on a regular basis to allow developing technology to be adopted as required. Dawnfresh will adopt the Scottish Technical Standard at all its sites including the proposed Cumbrae site should this application be successful.</p> <p>Losses through handling errors can be minimised through staff training and site management practices. DFF has historically focused on reducing handling errors by undertaking risk assessments for all farming practices where fish are to be handled or may be put in a situation where handling may cause fish to escape. This focus has resulted in DFF being an industry leader in reducing escapes though the company appreciates the need for continued vigilance.</p> <p>It has been widely acknowledged within the industry and amongst the industry regulators that a gap exists in the science of how lice on farmed fish impact lice levels on wild fish. This was highlighted in the recent parliamentary review of Salmon farming. Although Trout and Salmon are very different they are both of the Salmonid family and therefore susceptible to sea lice. The scientific shortfall is as apparent for Trout as it is for Salmon. The development of the Cumbrae site, and the wider Clyde region by DFF presents an opportunity to begin to address this scientific deficit. The absence of salmonid aquaculture in the upper Firth of Clyde and up Loch Long will allow baseline sampling of lice levels to be undertaken on the key river systems local to the proposed Cumbrae site and to the other sites of the proposed Clyde region. DFF proposes to work with the district salmon fisheries boards local to the region, and potentially an academic partner, to collect this baseline data prior to commencing farming in the region. Further data on wild fish lice levels can be collected for as long as the farms are in operation and compared to onsite lice levels to help to define the relationship between farmed and wild fish.</p>
STATUTORY CONSULTEE	
5. Impacts upon species or habitats of conservation importance, including Sensitive Sites	
DEVELOPER	

	The proposed site is located to the south of Ballochmartin Bay SSSI, and opposite the Southannan Sands SSSI.
STATUTORY CONSULTEE	
6. Navigation, Anchorage, Commercial Fisheries, other non-recreational maritime uses (MOD)	
DEVELOPER	<p>Navigation has been identified as a key issue in this development. In line with current regulation mitigation is offered for this impact.</p> <p>DFF has undertaken pre-application consultations with Peel Ports and the Northern Lighthouse Board. This was done at the earliest possible stage due to the significant volumes of traffic using the area around the proposed farm. Furthermore the proposed farm is close to Hunterston Deepwater Port which necessitated discussion with NLB in the first instance in the interests of safe navigation. Both parties will be fully involved in discussions during the application process.</p> <p>DFF has made all efforts to limit the width of the site and keep a distance from the Hunterston Channel. The site will be placed in a mooring grid which is 75m long but only 65m wide per pen making the site as compact as practicable. Moorings will be short scope and kept at the shortest practicable length without jeopardising site security to keep the mooring footprint of the site as small as possible. Navigational lighting requirements for the site will be requested from the NLB and guidance will be followed. It has historically been the practice that anchors would be initially marked to allow fishing and recreational vessels to mark their locations on their plotters before removal but given the proximity to the Hunterston Channel DFF will liaise with Peel Ports and the NLB to agree on the most appropriate way of distributing the anchor positions. As is common practice standard equipment locations will be circulated through a notice to mariners in discussion with the statutory Harbour Authority.</p> <p>Figure 6.1 below shows an example of how moorings sit in-situ, due to the nature of the operations it is essential that service vessels are able to access individual pens at the site. All DFF sites are designed with this in mind therefore mooring grid ropes are placed at a depth of 7m which allow boats with a draft of up to 6.5m to safely tie alongside the pens unimpeded. Mooring lines then extend from the mooring grid at 7m depth to the seabed. The Mooring lines consist of at least a full shot of heavy gauge chain at 27m long which lies on the seabed and allows the site to accommodate the rise and fall of the tide.</p>

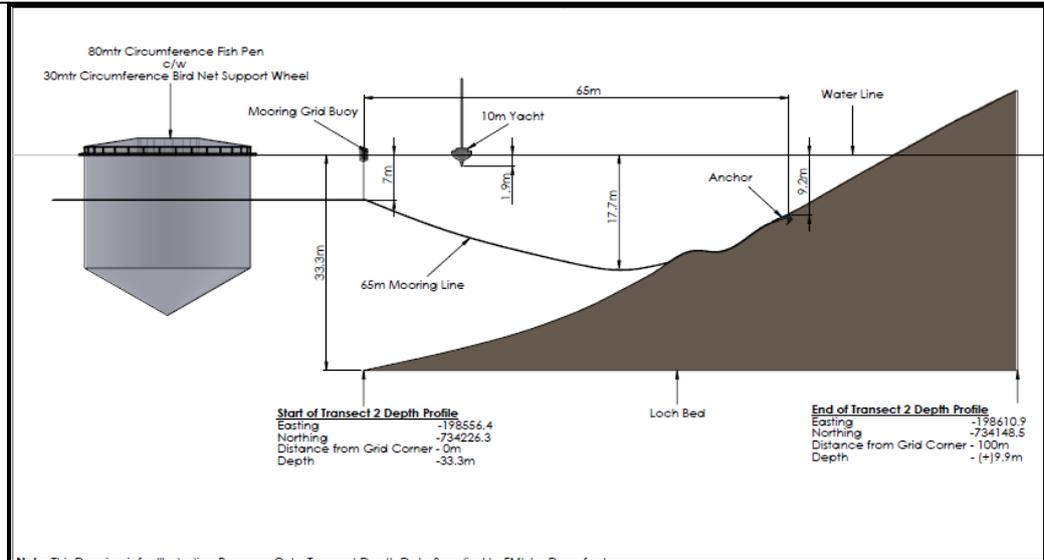


Figure 6.1: Mooring set up working depth

STATUTORY
CONSULTEE

**7. Landscape and
Visual Impacts**

DEVELOPER

Landscape and Visual Impact has been identified by the developer as a key issue in the proposed development. In line with current regulation mitigation is offered for this impact.

DFF will limit the height of all equipment on the site including aerials and antennas. In practice the majority of the site equipment will be low lying with the highest part of each pen being the net support which will extend to a maximum 3m in height. The feed barge will be the highest part of the development. This can be sited to the north of the site to make full use of the natural screening and minimise its visibility.

All equipment will be dark muted colours and any lighting not required for navigation will be of low power and shielded as far as possible. DFF will also commit to funding an information board which will have information on the operation of the farm with site specific detail about the Cumbrae site.

In addition to the above mitigation, DFF will undertake a full Landscape and Visual Impact Assessment (LVIA) of the proposed site. Photomontages will be prepared from key viewpoints which will be identified based on advice from an independent Landscape Architect in discussion with SNH and the Planning Authority. The location is well shielded from residential properties and in a location that has some level of industrial development. Due to the sensitivity of this location, a Zone of Theoretical Visibility assessment has been undertaken which is included below and in full as attachment 4.

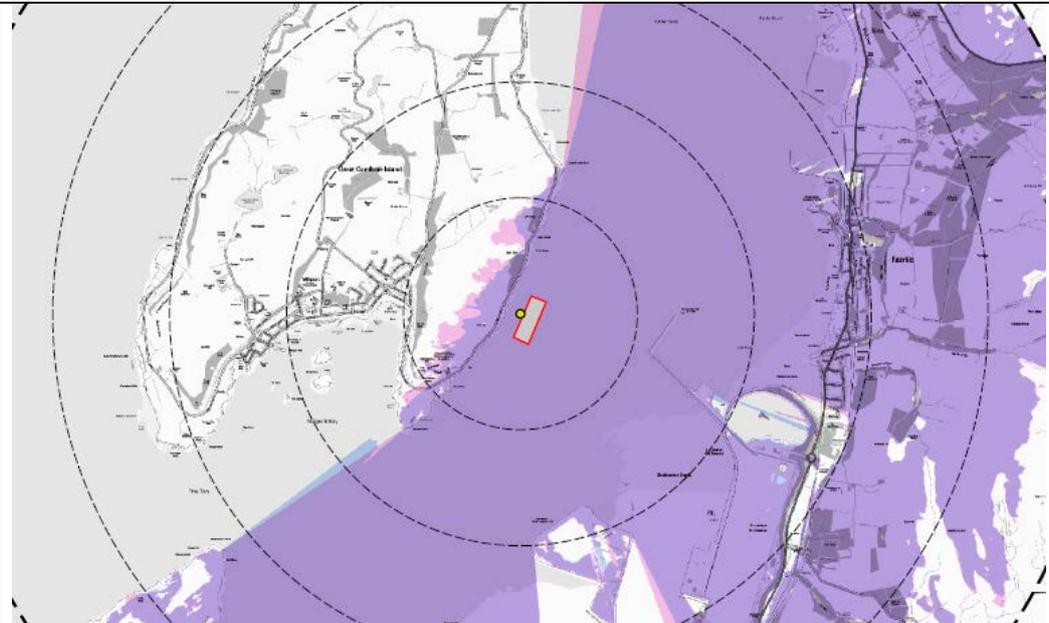


Figure 7.1: ZTV Great Cumbrae proposed site

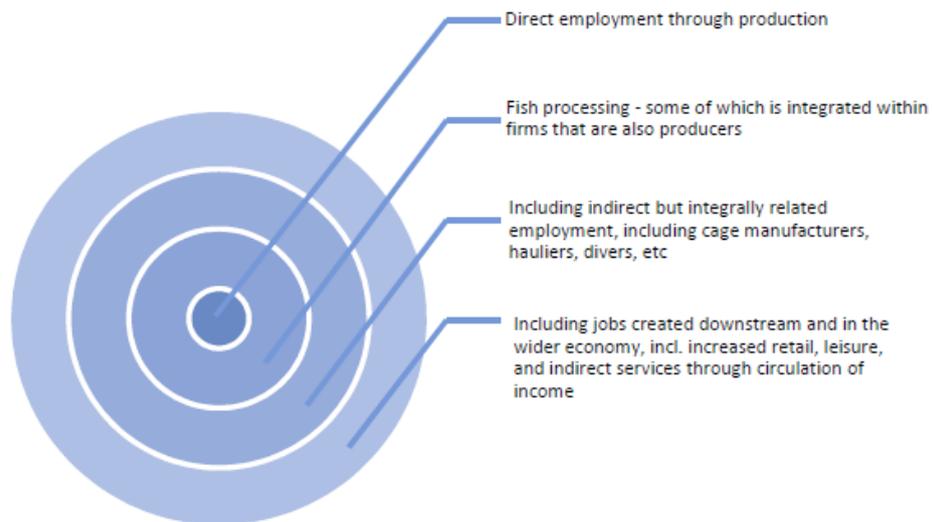
STATUTORY CONSULTEE	
8. Noise	
DEVELOPER	<p>Noise from farming operations is predominantly intermittent and is almost entirely confined to daylight hours except in exceptional circumstances. The main source of noise from a fish farm comes from the generators on board the feed barge which provide power for the blower systems and on board computer equipment. DFF will consider the impact of noise on the residential properties in the local area in the final application.</p> <p>Mitigation measures will be taken to reduce the level of noise from the generators such as adding additional soundproofing to the generator room of the feed barge and keeping the doors of the generator room closed when the generator is running.</p>
STATUTORY CONSULTEE	
9. Marine Cultural Heritage	
DEVELOPER	<p>There could potentially be an impact on the viewpoint at the Lion as it sits in close proximity to the proposed site. The site would also be visible from the main road into Millport. Should the site be permitted DFF is happy to commit to funding an information board to give information on the Cumbrae farm and also give information on the history of the Hunterston Deepwater Port.</p>
STATUTORY CONSULTEE	
10. Waste Management (non-fish)	
DEVELOPER	<p>Dawnfresh is committed to reducing waste generated by its fish farming operations and makes every effort to repair and re-use equipment where possible. The primary non-fish waste sources created by the site are nets, ropes and feed bags. Where</p>

	<p>waste is not recyclable it will be disposed of through a licenced waste contractor.</p> <p>In its other farming areas DFF has been an active supporter of beach cleans in the local area and regularly provides staff and boats to assist with beach cleaning operations. DFF views this kind of community engagement as a key part of its operations and will actively encourage continued community integration on Cumbrae and the surrounding area.</p>
STATUTORY CONSULTEE	
11. Socioeconomic, Access and Recreation	
DEVELOPER	<p>Dawnfresh Farming Ltd. is a Scottish owned, family run company and is the largest producer of trout in the UK.</p> <p>The establishment of the proposed Cumbrae fish farm will result in the creation of 6 full time jobs as a minimum. DFF is committed to establishing a shorebase facility on Great Cumbrae, and staff will be recruited as much as possible from the local area. Where this is not possible relocation assistance will be offered to assist should recruitment locally be unsuccessful.</p> <p>Additional services will be required for the site such as Marine Engineer, Electrician, Fuel Supply, Feed Supply, Divers, Workboat Hire/Purchase, ROV operator, and Technical Support to name a few of the many services used regularly by existing DFF farms.</p> <p>DFF is active in encouraging the continuous development of all staff and provides the opportunity to continue learning in the workplace. A large part of this is the continued engagement with the Modern Apprenticeship scheme which allows staff to achieve further qualifications on the job. DFF is also involved in a graduate scheme and employs a farming graduate each year. Every year the scheme has been run the candidate has gone on to achieve a full time position in the industry.</p> <p>DFF has achieved Investors in Young People Gold award and Investors in People Gold award. DFF has also helped to establish and has achieved RSPCA Freedom Foods accreditation for Trout.</p> <p>The establishment of sustainable year round jobs in sensitive areas can provide huge benefit to local schools and volunteer organisations the success of which is so important to small communities. Furthermore DFF has long sought to establish itself at the very heart of the communities in which it operates and provides significant support to many community groups, teams, organisations and events. DFF is committed to supporting the communities where we are based and will seek to integrate itself into the community on Great Cumbrae.</p> <p>The Great Cumbrae proposal is linked to a larger project of expansion being undertaken by DFF to establish a new production area. DFF is proposing 4 locations in and around the Firth of Clyde which would represent a significant investment and provide many benefits to the surrounding area. Should DFF be successful in establishing this new production area it will provide a total of 24 Full time positions directly on the 4 sites. A development of this size will necessitate the building of 7 workboats which DFF would seek to have built locally. The requirement will be for one 22m landing craft to cover all sites, 4 x 16m landing craft type boats, one for each site and 2 smaller net washing boats. The 22m boat and the net washing boats will require 2 crew working a 2 week on, 2 week off shift pattern which equates to 12 additional</p>

FTE positions. The site boats will be manned by site staff and each site will also require a small personnel craft.

Direct farm positions are the most easily defined benefits from the establishment of a fish farm, though there are many additional benefits that are harder to articulate in a quantitative manner. Highlands and Islands Enterprise and Marine Scotland released a document in 2017 titled "The Value of Aquaculture to Scotland". The document quantifies the knock-on benefit of aquaculture to Scotland as able to support approx. 4.8FTE (Full Time Equivalent) positions per 1 FTE direct position. For the four sites proposed in the Clyde region this could equate to up to 170 additional FTE positions in Scotland in addition to the 36 direct positions across all four sites as a result of the development. A graph illustrating the additional benefits of aquaculture is included below.

THE ECONOMIC MULTIPLIER IN SCOTLAND OF SALMON PRODUCTION



**The graph has been prepared in relation to Salmon but it is also applicable to Trout production.*

Cumbræ is ideally placed to benefit from the overall Clyde project, in addition to the 6 FT positions directly on the Cumbræ site, DFF would like to operate the Little Cumbræ site from a shorebase established on Cumbræ which would result in a further 6 FT positions for the island. Furthermore a fundamental consideration of this project is infrastructure, the exposed nature of the proposed sites means workboats would need to have berthing facilities to tie up overnight close to the sites. Cumbræ is ideally placed geographically should the infrastructure be in place on Cumbræ to accommodate work vessels. If so this would add the 12 FT positions of workboat crews to the 12 FT site staff based on Cumbræ resulting in a potential 24 FT positions on Cumbræ.

Each of the 4 sites would be serviced by an automated feed system therefore this would require 4 feed barges to be built, again DFF will seek to have these built in Scotland. The establishment of the production area will also necessitate local harvest facilities and port facilities of which there are many potential options on the Firth of Clyde. This has the potential for further employment in areas where unemployment is high due to the reduction in heavy industry on the Clyde.

DFF's factory in Uddingston will also benefit significantly from this development as it has the potential to increase throughput which will secure existing jobs and is

	<p>predicted to create a number of new positions.</p> <p>Accommodation providers on Cumbrae would also see a benefit from staff visitors (fish health staff, sampling teams, auditing staff) and the periodic use of local meeting room facilities.</p>
STATUTORY CONSULTEE	
12. Traffic and Transport	
DEVELOPER	<p>It is the intention of DFF to service the site as much as possible by sea to limit any impact on road traffic. Feed will be brought to the site by boat and blown into the feed barge and fish will be stocked and harvested by well boat.</p> <p>There is the potential for a slight increase in road traffic locally with site staff travelling to and from work, although this can be mitigated by the provision of a site vehicle. The shorebase will require a forklift for moving heavy equipment stored at the shorebase but these operations will be limited to daylight hours wherever possible.</p> <p>The establishment of a farm in the waters off Great Cumbrae will result in a slight increase in boat traffic in the area. The site will be serviced by small personnel craft daily from the shorebase, once it is established. A workboat will also be used to service pens and will be used for lifting operations such as changing nets, undertaking medicinal treatments.</p> <p>There will be increased activity around the proposed farm during the construction of the site for between two to three weeks.</p>
STATUTORY CONSULTEE	
13. Any other issue	
DEVELOPER	
STATUTORY CONSULTEE	

TEMPLATE TRANSFER GUIDANCE – 1

After the developer has completed the Proposal box and Sections 2, 3, 4 and the relevant rows of Section 5, the current version of the master template, **should be emailed or posted on CD-ROM to the relevant authority (local authority planning department).**

The template should have a unique file name, which might usefully include the date at which this version is emailed/posted to the relevant authority.

TEMPLATE TRANSFER GUIDANCE – 2

After the relevant authority (local authority planning department) has completed Section 1, the current version of the master template, **should be emailed or posted on CD-ROM to the statutory consultees.**

The template should have a unique file name, which might usefully include the date at which this version is emailed/posted to the statutory consultees.

6 STATUTORY CONSULTEE RESPONSE

6.1. Organisation:

Contact name:

Directorate/Division/Agency:

Telephone number:

Email:

We have considered this proposed development in terms of formal EIA Screening and Scoping, and have completed our assessment of the significance of potential environmental impacts.

Check or complete the following fields as required.

We obtained supplementary information from the developer during our consideration

We consulted with other Statutory Consultees during our consideration

Our advice as to your Screening opinion is summarised as:

Our advice as to your Scoping opinion/advice, relating to environmental information that should be included in an Environmental Statement, is summarised as:

Our advice on additional information that should be submitted in support of any future planning application for the proposed development is summarised as:

Electronic signature:

Date:

TEMPLATE TRANSFER GUIDANCE – 3

After each statutory consultee has completed their relevant part of Sections 5 and 6, they should email or post on CD-ROM **those sections only** back to the **relevant planning authority** within six weeks from the date of the planning authority's letter. Prior to doing so, the statutory consultee should complete the boxes at the top of the second page of Section 5 on the name of the project and its location in order to identify which project they are commenting upon. If another unique identifier has been agreed with the planning authority, the 'other identifier' box should also be completed.

The returned portion of the template should have a unique file name, which might usefully include the date at which this version is emailed/posted to the relevant authority.

7 RELEVANT PLANNING AUTHORITY SUMMARY

Once the relevant authority has received and analysed the responses from statutory consultees, they should complete Section 7.

7.1. SCREENING OPINION - Relevant Planning Authority Summary

We have considered this proposed development in terms of formal EIA Screening, and have completed our assessment of the significance of potential environmental impacts, and the advice offered by statutory consultees where relevant. We conclude:

1. No EIA is required for this proposed development
2. No EIA is required but we will seek further information on some details during the planning process
3. An ES will be required for this proposal. A statement of reasons is attached (Annex 2).

In the event of checking box 2 above, please enter further information here.

We would wish to see the planning application take account of the following detailed points:

Electronic signature:

Name:

Planning authority:

Telephone no:

Date:

7.2. SCOPING OPINION - Relevant Planning Authority Summary

We have received advice by way of completed versions of this Template, from all relevant statutory consultees. We conclude that an Environmental Statement should be prepared and submitted with the planning application. The specific issues we would wish to see addressed in the ES are set out in our attached scoping opinion (Annex 3).

Complete as required, using the scoping advice offered by statutory consultees, which can be pasted in if appropriate (see Annex 4).

Summary of the specific concern about any **significant** environmental impacts, and summary of details required in the Environmental Statement.

Any other comments:

Electronic signature:

Name:

Planning authority:

Telephone no:

Date:

TEMPLATE TRANSFER GUIDANCE - 4

*The relevant authority should now send (e-mail or post on CD-ROM) this completed template to the developer within the **8 week** deadline period.*

ANNEX 1 DEVELOPER TO USE AS REQUIRED FOR ADDITIONAL INFORMATION

Insert any attachments here.

**ANNEX 2 PLANNING AUTHORITY TO INSERT A FULL STATEMENT OF REASONS WHY
THE DEVELOPMENT IS EIA DEVELOPMENT**

Planning authority insert letter here.

Planning authority insert letter here.

**ANNEX 4 PLANNING AUTHORITY TO INSERT STATUTORY CONSULTEE RESPONSES
(IF APPROPRIATE)**

If this Annex is to be utilised, the planning authority should paste in all the statutory consultee Section 5 and 6 responses.

Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017

EIA Schedule 2 SCREENING OPINION

REFERENCE:

19/00086/EIA

NAME AND EMAIL ADDRESS OF APPLICANT:

Dawnfresh Farming Ltd

SITE ADDRESS or LOCATION:

Site to North East of University Marine Biological Station, Marine Parade, Millport, Isle of Cumbrae

PROPOSAL:

Creation of fish farm

EIA REQUIRED

YES

The written statement of reasons and measures envisaged to avoid or prevent significant adverse effects on the environment is provided overleaf.

WRITTEN STATEMENT

1. With reference to the criteria set out in schedule 3 as are relevant to the development, the following statement provides the main reasons for the planning authority's conclusion as to whether the development is, or is not, EIA development.
2. In cases where the opinion of the planning authority is that the proposed development is not EIA development, any features of the proposed development or proposed measures envisaged to avoid or prevent significant adverse effects on the environment are set out below.

It is noted that the proposed development falls under Class 1 (d), Schedule 2 of the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017.

Characteristics of the Development

From the plan submitted, the size of the development would potentially cover an area of some 6.6hectares. The design would be of typical fish farm type with 10 pens, each 38m in diameter, within a mooring grid 375m by 150m. Additional to the pens there would be an automated feed barge.

There would be no cumulation with existing or approved development, although a screening opinion has been sought for a similar development on the west side of Little Cumbrae, some 4km to the south-west. It is also understood a similar screening opinion has been sought from Argyll and Bute for a site off Bute, some 7km to the west.

As above, the development would potentially operate in an area of up to 6.6hectares of sea and the corresponding area of sea bed. There could be impacts on the wider sea area, water column and benthic zone. The development would have a maximum stocked biomass of 25000 tonnes with a stocking density of 13.6kg per cubic metre. The main risk of accident/disaster would appear to be from the potential for fish escape. The risks to human health would likely be indirect through any impact on the marine environment.

Location of Development

The proposal would be on an undeveloped part of the sea and there are no specific existing or approved uses in planning terms. The site is within the wider Firth of Clyde and the channel between Fairlie and Great Cumbrae. The channel is approx. 1.3km wide at its narrowest point. There is potential for interaction between the farmed fish and wild marine species.

The site is located off the coast of Great Cumbrae in an area identified by the Local Development Plan (LDP) as being Countryside, Undeveloped Coast and the Special Landscape Area of Great Cumbrae. The main road around Great Cumbrae, which is an Adopted Core Path, and heavily used would be within approx. 100m of the site.

The site is some 1km south of the Ballochmartin Bay Site of Special Scientific Interest (SSSI) and Local Nature Conservation Site. This SSSI is described as the most varied section of coast on Great Cumbrae. It is of considerable importance for research and teaching of marine biology. The site is also some 2.6km by sea from the Kames Bay SSSI and 1.3km from the Southannan Sands SSSI. Operations likely to damage the features of all the SSSIs include the release into the sites of domestic fish and changes in coastal fishing practice. The site is also approx. 750m to the north of the Farland Point Local Nature Conservation Site.

Characteristics of Potential Impact

The development would result in the establishment of a marine fish farm in an area where there have not been any fish farms before. This will give rise to impacts in terms of the physical presence of the equipment, which could have implications for navigation and visual and landscape impacts. The area is well used by marine vessels, including many recreational vessels. The SportsScotland National Watersport Centre is nearby as is the port of Hunterston and Largs Yacht Haven. The wider area is known to be used by Ministry of Defence vessels.

In terms of visual and landscape impact the development would likely impact on the Undeveloped Coast and Special Landscape Area. Consideration would have to be given to the impact of the proposal when viewed from both Great Cumbrae itself and the mainland and in particular the settlements of Fairlie and Largs.

There would also be impacts for the environment. In particular this would be in terms of interaction between farmed and wild species. Sea lice control, containment and predator management would have to be considered. The impact on the benthic zone would also have to be considered. The proximity to the SSSIs and the impact that the change in fishing practice and potential escape of farmed fish could have on the SSSIs would need to be considered.

Conclusion

Given the above it is the opinion of North Ayrshire Council, as Planning Authority, that the proposal is likely to give rise to 'significant environmental effect,' which would warrant assessment through the environmental impact assessment process. Therefore any planning application for the development should be accompanied by an EIA Report.

Please note that the above screening opinion does not constitute pre-application advice, which should be sought separately.

SENIOR PLANNING SERVICES MANAGER: ██████████

DATE: 15th February 2019

Predator Mitigation Plan: Proposed Cumbrae Fish Farm, Firth of Clyde

Reviewed 08/01/2019

This predator plan is designed to consider the predation pressures which may be faced by an aquaculture site in The Firth of Clyde and detail the various mitigation measures that Dawnfresh Farming Ltd will implement in response to a predation issue. The plan will lay out a strict path of increasing response to predation but it will also detail the path for decreasing response once an issue has been addressed.

It is always preferable to try and avoid interaction with predators in the first instance as once a predator has identified the farm as a viable food source they will continue to try and gain entry to it to access the food.

To limit any interaction of wildlife and farmed trout as a first line of defence bird nets and seal blinds are installed on every stocked fish farm pen. The bird nets, or top nets, used by DFF are 30mm mesh nets and are used in conjunction with bird net supports. The net support is necessary in order to prevent the top net dipping into the water under the weight of avian predators or visiting birds that may use the net as a perch. Also the net support will allow the feeder system to operate successfully and avoids feed being accessible. Mesh size is of a specification that prevents access to fish stock and reduces the danger of entanglement. In order to prevent birds gaining access to the pen, and potentially becoming trapped all top nets will be secured to the pen ring.

Seal blinds are sections of fine mesh which are attached to the underwater net panels around the mort collecting cones. This is generally the area where seals are first attracted to a fish farm pen as it contains dead and moribund fish. The seal blinds prevent seals from seeing fish which prevents them from identifying the pens as a food source and are designed to stop them trying to gain access. This will reduce the potential for net damage.

A high degree of net tension is another proven defence against predators; the pens proposed for the Cumbrae site are 38m diameter circular pens which are weighted using sinker tubes. Sinker tubes are heavy circular weights which hang just below the net and are attached directly on to the net. These sinker tubes hold the net under constant strain and reduce the potential for bagging due to tide, this makes it very difficult for seals to bite fish through the net. This weighting system is able to hold nets under great tension and attains a more even distribution of the weight that older single point weights were able to achieve.

All nets used at the Cumbrae site will be Sapphire SealPro nets which offer additional strength and resistance to seal attack. Due to their high stiffness and excellent abrasion resistance, especially when wet, the nets provide resistance to biting by seals and allow a heavier weighting system to be utilised further helping to maintain the shape of the nets. The SealPro nets have a much higher cut resistance than normal polyethylene which reduces the likely hood of a seal gaining access to fish.

Full enclosure predator nets will be considered for use at this site but prior to any deployment a full risk assessment will be undertaken to assess the risk of entanglement of non-target species. Predator nets will only be deployed if the risk to non-target species is sufficiently low. For the entire period of deployment a log will be maintained detailing any non-target species found trapped in the

net and their use will be under constant review. The success of full enclosure predator nets is dependent on the hydrographic conditions at the site and being able to maintain good net tension. If tension cannot be adequately maintained predator nets will be removed from the site.

In the event of tensioned nets, seal blinds and top nets not being effective in discouraging predation and if predator nets are unsuitable for deployment. DFF will consider increasing the level of protection for stock by installing Acoustic Deterrent Devices (ADDs). This measure represents an escalation of the predation status of the site and will only be considered if a continued mortality trend is observed. Once the predation threat has passed, the predation status of the site can be reduced back to the lower level and the ADDs either switched off or removed. The decision to increase or reduce the predation status of the site is a decision which will be taken by the site manager and will be based on the threat to the welfare of the stock. Once ADDs have been deployed their use will be constantly reviewed to ensure they are not in operation for longer than is necessary.

As a last resort, persistent seals may be humanely dispatched by shooting. This is only ever considered as a last resort once all other methods have failed. DFF appreciates that the shooting of any animal is a deeply emotive issue and will endeavour to avoid taking lethal action if at all possible. Should the farm manager feel that this is the only option available in response to a specific predation issue then they will have to demonstrate to the Seawater Manager and Farming Director that all other options have been fully exhausted. Only highly trained and licenced private contractors will be used to humanely dispatch a problem seal using a high calibre rifle to minimise suffering.

DFF will revise the predation plan for every production cycle to ensure the strict welfare criteria outlined in the freedom foods accreditation are being met.

Predator Mitigation Plan for Cumbrae Trout Farm

Top Nets, Tensioned Nets, Seal Blinds, Lift-up System

The above measures will be undertaken as an initial attempt to reduce interaction between seals and stock. DFF will endeavour to recover mortalities on a daily basis and records will be kept of the reasons for mortality.

Checks of all of the above measures will be undertaken frequently to ensure site security is maintained

Full enclosure predator nets

A full risk assessment will be undertaken to assess the risk of entanglement of non-target species. Predator nets will only be deployed if the risk to non-target species is sufficiently low.

Acoustic Deterrent Devices (ADDs)

If the initial measures undertaken to reduce interactions between seals and stock cease to be effective in protecting stock DFF will deploy acoustic seal scaring devices.

ADDs will be monitored daily to judge their effectiveness and they will be turned off or removed once seal predation has stopped

Are there any more effective ADDs on the market which could be more suitable for this predation event.

DFF will continue to monitor the emerging technology of ADDs and endeavour to use the most appropriate devices to the specific situation.

If there is a problem with a particularly aggressive and persistent seal and the above mitigation measures have been unsuccessful in protecting the welfare of stock the rogue seal will be humanely dispatched by shooting. This option is only ever considered as a last resort when all other methods have failed and is undertaken in line with the appropriate legislation under a Marine Scotland Seal Management Licence. Prior to engaging in lethal action the Farming Director and Seawater Manager must be in agreement that all other avenues have been fully explored. Full records will be kept of any seal shot.

The Scottish Salmon Company



ADD Deployment and Usage Plan

Ardyne, Sound of Rothesay

Date	April 2019
Revision No.	A1
Author	
Approved by	

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1. Introduction

As a farm operator, it is important that Scottish Salmon Company (SSC) is able to protect the fish held on site from any predator threat and has developed a site specific Predator Control Plan for the Ardyne site, which details the measures that will be used to deter avian and mammalian predators. The use of Acoustic Deterrent Devices (ADDs) forms part of this plan.

2. Purpose of ADD Deployment and Usage Plan

This plan has been prepared, and provided to Argyll and Bute Council, as supporting information to a planning application for an extension to the Ardyne marine fish farm, Sound of Rothesay. The plan has been prepared to meet the requirements of Scottish Natural Heritage (SNH), as detailed in their response to the Scoping request for this development (Reference 19/00335/SCRSCO).

The Ardyne site is not located in the vicinity of any designated areas for harbour porpoise. There have been occasional sightings of harbour porpoise recorded at the existing site, therefore there is the potential for interaction between the use of ADDs as part of the predator control measures at the replacement site and harbour porpoise that may be in the vicinity of the site.

Various measures will be employed at the Ardyne site prior to ADDs being considered necessary, and these measures are detailed in the Predator Control Plan.

3. ADD Deployment and Usage

3.1 Equipment Specification – OTAQ SealFENCE

The proposed ADD for the Ardyne site is the **OTAQ SealFENCE Seal Deterrent System**. This system uses a bespoke ultrasonic transmission to create an acoustic fence around the cages, intended to deter seals. Technical details of the system are as follows:

Frequency	8 – 12kHz (single waveform centred around 10kHz)
Source level	198dB re 1µPa/@1m
Duty Cycle	Variable depending on demand
Standard operation	2 second pulse every 8 – 12 seconds (random (can be increased or decreased from central control)

OTAQ will provide installation, staff training, and maintenance of the whole system. OTAQ will also provide any necessary software updates.

A SealFENCE deployment system has been designed specifically by OTAQ for the Ardyne site. Each transmitter provides around 45m (90m diameter range) of deterrence to seals and a total of 24 projectors will be located around the perimeter of the cage groups. The proposed layout of units is shown below in Figure 1 (diagram provided by OTAQ). This will ensure that, when activated, there is an effective perimeter protection with sufficient overlap between each projector.

The SealFENCE system can be controlled centrally from the barge. This provides the farm manager with a visual representation of how the system is operating and allows the activation or deactivation of the system.

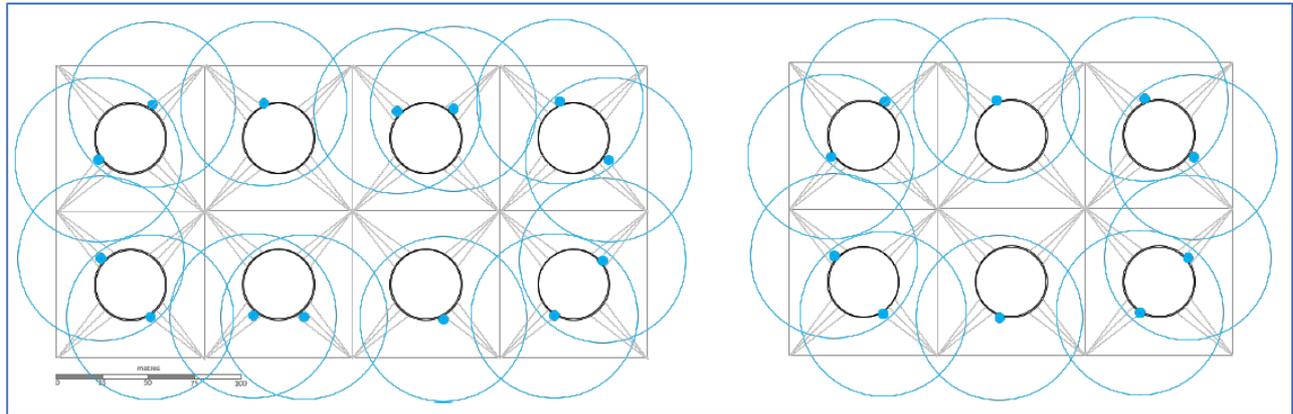


Figure 1 - Proposed SealFENCE design and coverage at existing Ardyne site. Blue dots show location of each SealFence system

3.2 Triggers for Activation

It is proposed that the system is normally switched off and may be activated by the site manager.

Sightings of seals, in close proximity to the site, will be recorded by site staff regularly in the Seal Log. Seal activity within the site boundary will result in appropriate action being taken in line with the Predator Control Plan.

The decision to activate and deactivate the SealFENCE will be made by the site manager, in accordance with the attached ADD deployment decision flow diagram (Figure 2). The ADD deployment plan and decision flow will be followed if mortalities which are directly attributable to seal kills are recorded. It is imperative that SSC protect their stock, therefore the ADD will remain operational for as long as seal mortalities are being recorded, within a maximum 2-week period. The effectiveness of the system, and the requirement for the continued activation of the system, will be reviewed daily within this period. If zero seal mortalities are recorded for 5 consecutive days, ADDs will be switched off. Continued use of the SealFENCE will be reviewed at the end of the initial 2-week period.

Details on SealFENCE activation/de-activation and performance are recorded electronically by the system. Further details on activation 'triggers' are provided in the flow diagram.

3.3 Data Logging

3.3.1 Use of ADDs

Detailed records will be kept by SSC on the duty cycle of the ADD, which will detail deployment cues, operational dates, sound frequency and duration. In addition, the SealFENCE system contains a monitoring component, which continuously monitors and records the output from each projector. As well as allowing operators to verify that their system is working correctly in real-time, this also means that it can provide data verifying exactly how a system has been working during a period of time. This will allow for a full record of dates and times that the device is sounding, and the duration. A report analysing this information will be presented to Argyll and Bute Council (ABC) prior to the review meeting.

3.3.2 Predation

Seal activity in the proximity of the site will be recorded in the Seal Log and site diary, and seal mortalities will be recorded on the FishTalk system. Cetacean sightings will also be recorded in the site-specific Wildlife Log. As noted above, records will be kept by SSC, which will detail deployment cues, operational dates, sound frequency, and duration. This information will be reviewed collectively by the site manager and regional

manager at the end of each production cycle and will inform future decisions on predator control measures at the site.

4. Responsible Persons

- Site Manager and Senior Marine Operative.

5. Review Process

SSC commits to meet with Argyll and Bute Council (and Scottish Natural Heritage (SNH), if requested), at least annually, unless otherwise agreed in writing with ABC, to review the ADD Deployment Plan, and information gathered from the Seal Log, Wildlife Log and ADD performance records. The robustness of the ADD deployment plan will be reviewed at these meetings and SSC commits to adopt any changes to the plan deemed necessary by ABC.

6. Associated Documents

- Ardyne Wildlife Log;
- Ardyne Seal Log;
- Ardyne Predator Control Plan;
- Ardyne ADD Deployment Plan; and
- Ardyne ADD records.

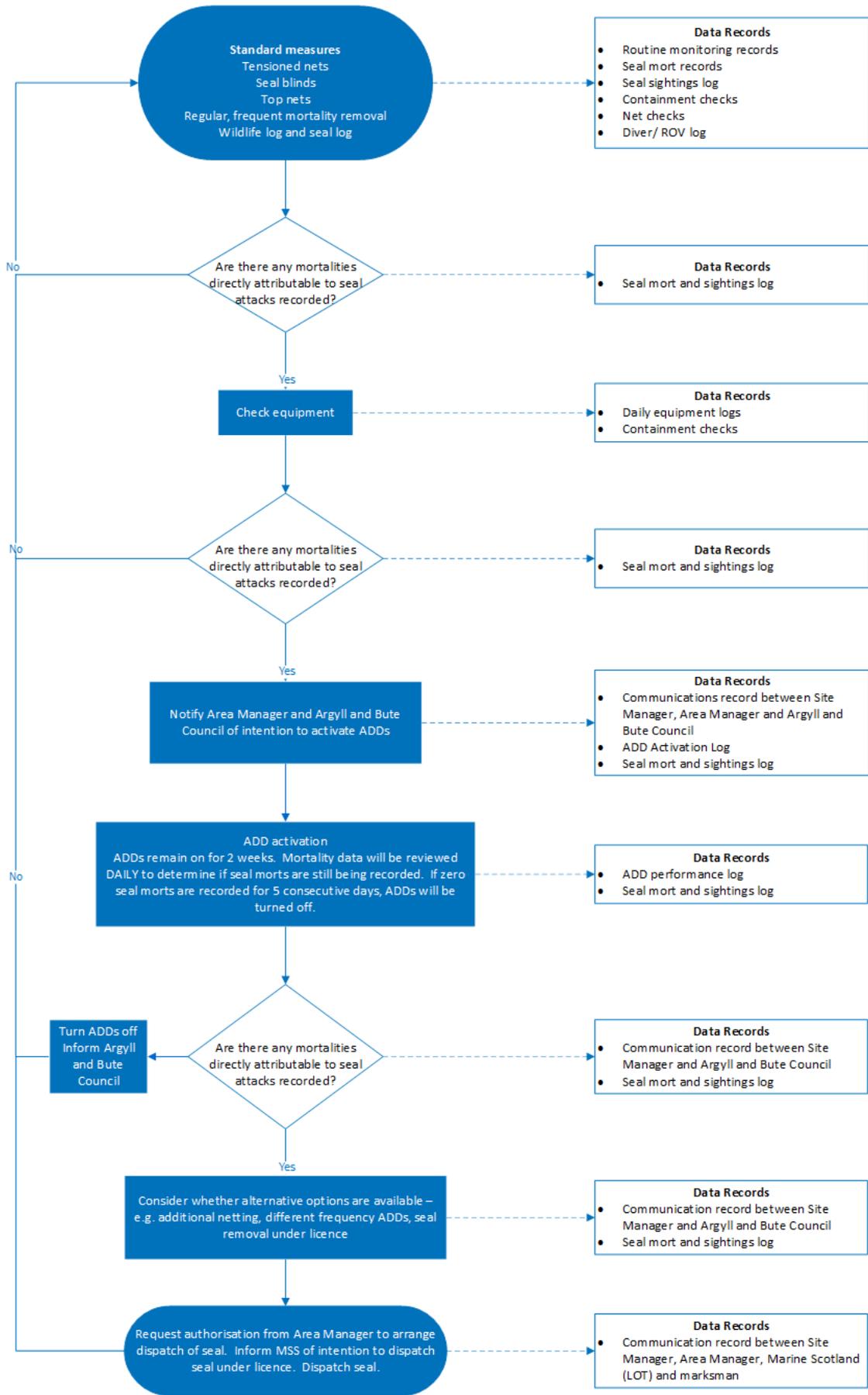


Figure 2 - ADD decision flow diagram