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Kyleakin Fish Feed Factory

Marine Harvest

Environmental Impact Assessment - Volume 2 of 4: Main Report

Chapter 1: Introduction

Final

May 2017





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1 Introduction

1.1 Purpose of this Report

This Environmental Statement ('ES') has been prepared on behalf of Marine Harvest (Scotland) Ltd (hereafter referred to as MH or 'the Applicant') to identify and consider the environmental impacts of their proposed scheme to develop a Fish Feed Factory (hereby referred to as 'the Proposed Development') at Allt Anavig Quarry, Kyleakin, Isle Of Skye.

This ES reports and assesses the predicted environmental effects from the Proposed Development during its construction and operation. It forms part of the wider process of Environmental Impact Assessment (EIA), which is undertaken to ensure that the likely significant effects of the Proposed Development are considered in full by the appropriate authority prior to the determination of applications for a Marine Licence and planning permission. The objectives of the ES are summarised as follows:

- to identify both positive and negative potential effects that may arise from the construction, operation and decommissioning of the development, taking account of the Proposed Development's size and location, the sensitivity of the local environment, the concerns of interested parties and the requirements of statutory consultees;
- to establish the existing environmental conditions of the Development Area as outlined below in **Section 1.3** and surrounding area;
- to predict and evaluate the extent and significance of potential effects;
- to identify and evaluate possible mitigation measures to reduce any adverse effects;
- to identify residual effects; and
- to establish a programme of monitoring, where required.

In recognition of the Town and Country Planning (Scotland) Act 1997 (as amended) a planning application was submitted to The Highland Council (THC), 'the Local Planning Authority' (LPA), for planning permission. A full set of plans, illustrating the Proposed Development, and supporting documents were submitted as part of this application along with the ES. Planning permission was granted for the terrestrial elements of the Proposed Development by THC under reference 16/03869/FUL on 2nd March 2017.

In regard to the marine elements of the Proposed Development, under the Marine Works (Environmental Impact Assessment) (Amended) Regulations 2017 (herein referred to as 'MWR') the appropriate authority (in this instance, Marine Scotland Licensing Operations Team (MS-LOT) acting on behalf of the Scottish Ministers) are required to consider whether any proposal with marine works is likely to have a significant effect on the environment. MS-LOT must determine that an EIA is required in relation to any regulated activity that is to be carried out in the course of an Annex I (Directive 85/337/EEC, herein referred to as "the EIA Directive") project.

As part of a formal screening and scoping request (Section 1.9) by the Applicant, under Regulations 11 and 13 and Schedules 2 and 4 of the MWR; MS-LOT (as the appropriate authority) determined the Proposed Development falls within Annex I Section 8(b) of the EIA Directive, and that an EIA was required for the Proposed Development.

Considering the marine aspects of the Proposed Development it is the intention of Marine Harvest to submit Marine Licence applications (MLA) to MS-LOT. Acknowledging the Marine (Scotland) Act 2010, specifically in relation to licensable marine activities, MS-LOT have confirmed the requirement for separate licences for Marine Construction and Dredging activities.

The description of the MLA for Construction Projects is, as follows:

"The proposed project involves the extension of an existing pier involving capital dredging works and the placing of a long sea outfall pipe extending into the intertidal and subtidal environments."

The description for the MLA for Dredging and Sea Disposal is, as follows:

“Dredging is required for the construction and operation of a new pier as part of the proposed Kyleakin Fish Feed development. The area of the dredge is 58,000m² and the estimated dredge volume is no greater than 190,000m³. Dredging works are to be carried out by backhoe dredger with a hopper barge unloading dredged material at a temporary jetty. It is proposed to then stockpile the dredge material (no sea disposal) within the former quarry site west of the Proposed Development for future use. Up to 52,000m² of the dredge material will be made available to be reused for the Proposed Development where possible (e.g. cession infill, scour protection, etc).

This ES, the Kyleakin RIAA, and all their appendices, thus provide supporting information for the Marine Licence applications for the Proposed Development. The Kyleakin Fish Feed Plant Proposal

The Proposed Development is described in detail in **Chapter 2: Project Description**. In summary, it will comprise:

- Land reclamation.
- Intake pier and quay (and the associated dredging works).
- Long sea outfall.
- Temporary pier for landing of dredge material.
- Truck raw material intake building.
- Ship raw material intake building.
- Raw material foundations and silos.
- Dosing building and bins.
- Milling/mixing building.
- Main process building.
- Foundations for oil storage tanks.
- Boiler / oil and transformer rooms.
- Work shop building.
- Warehouse for raw materials.
- Warehouses for finished product.
- Medicated feed building.
- Bio-bed structure.
- LNG storage.
- Finished product bulk silos.
- Water treatment and water tank.
- Air stack.
- Transformer.
- Roads and paved areas.
- Drainage.
- Plant and security fencing.

The tallest structure is the air stack with a height of 60 m. Excluding upgrading or construction of any access track to the site or the Proposed Development, the Development Area will encompass 350,000m², covering terrestrial and marine environments.

1.2 Development Area

The Proposed Development is located at grid reference NG737263 (173789, 826444) at the Allt Anavig Quarry on the northern shore of southern Skye (see **Figure 12.1**). It is adjacent to the Kyle Akin narrows and the Skye Bridge crossing from the mainland. It is situated in a remote area approximately less than a kilometre to the west of the village of Kyleakin and some 8.5 kilometres to the east of the Broadford estuary on the northern coast of Skye.

The A87, which is situated approximately 250 metres from the roundabout leading to Skye Bridge to Kyleakin, lies on the boundary of the site. The main vehicular access to the terrestrial portion of the Development Area, lies on the southern boundary via the A87. This road runs west from its junction with the A82 road at Invergarry and is a major primary road that runs to the West Coast of the Isle of Skye terminating at Uig.

The landward section of the Development Area was formerly operated as a sand and gravel quarry under the terms of a 20 year planning permission that was granted in 1992 up to 2012. A planning application to review the operation of the quarry under Section 74 of the Town and Country Planning (Scotland) Act was submitted in May 2007.

The inland part of the Development Area has been heavily worked into a flat-bottomed, open fronted 'bowl'. It also has a higher part of land to the north which is heavily wooded, as is the rising land to the south of the road. There is an existing quarry access from the A87 and access to the sea via a substantial pier.

The marine element of the Development Area contains an existing pier which was utilised as part of the previous on-land quarry operation.

1.3 Marine Harvest (Scotland) Ltd

The Applicant is one of the largest seafood companies in the world, and the largest producer of Atlantic salmon. The company is represented in 24 countries and supplies healthy and sustainably farmed salmon and processed seafood to more than 70 markets worldwide.

The Applicant is present in all major salmon farming regions in the world with salmon production volumes reaching 420,000 tonnes per annum, and employ around 11,700 people worldwide.

1.4 EIA Project Team

Jacobs were appointed by the Applicant to lead and carry out an independent EIA and prepare the ES for the Proposed Development.

Jacobs is a registrant with the EIA Quality Mark scheme awarded by the Institute of Environmental Management and Assessment (IEMA), a leading international organisation dedicated to the promotion of sustainable development and the promotion of best practice standards in environmental assessment and management.

The EIA has been managed by Jacobs and the ES Chapters prepared by the Jacobs team on behalf of the Applicant. The landscape and Visual Assessment has been prepared by ASH Design & Assessment. The ES is broken down into a number of introductory and explanatory chapters (**Chapters 1-4**) and the technical assessments undertaken to address the relevant environmental issues (**Chapters 5-20**).

1.5 Commenting on the Application

Representations to the MLA should be made in writing to The Scottish Government, Marine Scotland:

By email:

ms.majorprojects@gov.scot

Or by post to:

Marine Scotland
Marine Planning & Policy.
Marine Laboratory,
375 Victoria Road,
Aberdeen,
AB11 9DB

1.6 Legislative Requirements for Environmental Impact Assessment

The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011 (the EIA Regulations), implemented by the European Council Directive No. 85/337/EEC (as amended by Directive No. 97/11/EC) illustrates the assessment of the effects of certain projects (private and public) on the environment (**Ref 1-1**).

Under the EIA Regulations any development considered likely to have significant effects on the environment must be subject to EIA and an ES must be submitted with the application.

Schedule 1 of the EIA Regulations lists those developments that require an EIA. The Proposed Development falls within Schedule 2 of The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011 and could potentially result in significant effects, therefore an EIA is required. Hence the information must be provided to the determining authority in the form of an ES.

The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017 came into force on the 16th May 2017. However, as planning permission has already been achieved for the terrestrial elements of the Proposed Development (under THC reference 16/03869/FUL on 2nd March 2017) and the remaining required works for the construction works are below mean high water springs MHWS the applicable regulations for the marine licenses are set out under **Section 1.6.1** below.

1.6.1 Marine Works

As some of the proposed works will take place in the marine environment cognisance is given to the Marine Works (Environmental Impact Assessment) Regulations 2017 (as amended) (MWR) (**Ref 1-2**).

MS-LOT is the appropriate authority and thus functions as the regulator for such works. Following from this MS-LOT determined that the Proposed Development fell within Annex I, Section 8(b) of the EIA Directive, and would thus require an EIA that covered the marine elements of the proposal.

1.7 Structure of the Environmental Statement

The purpose of the ES is to provide information to the appropriate authorities (i.e THC and MS-LOT) statutory consultees, local residents and other interested parties about the Proposed Development and its likely environmental impacts. The ES presents information on the identification and assessment of the potential environmental effects of the Proposed Development and identifies appropriate measures to mitigate these impacts where appropriate.

This ES has been undertaken in accordance with the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011 ('the EIA Regulations') (**Ref 1-1**) and the Marine Works (Environmental Impact Assessment) Regulations 2017 (as amended) (MWR) (**Ref 1-2**). In accordance with Part 1 of Schedule 4 of the EIA Regulations and Schedule 3 of the MWR this ES contains the following:

- A description of the proposal.
- An outline of the main alternatives and an indication why this specific development was chosen.
- A description of the aspects of the environment that could be significantly affected by the proposed project (all technical chapters).
- A description of the forecasting methods or evidence used to identify and assess the significant effects on the environment.
- A description of the likely significant effects of the proposed project on the environment which will cover the direct effects and any indirect, secondary, cumulative, short, medium and long-term, permanent and

temporary, positive and negative effects of the project (all technical assessment chapters, including cumulative impacts).

- A description of the mitigative measures which the developer proposes to take in order to prevent, reduce, remedy or offset any significant adverse effects on the environment (all technical assessment chapters).
- A non-technical summary (NTS) of the ES.
- An indication of any limitations (technical deficiencies or lack of know-how) encountered by the developer in compiling the required information (contained within technical assessment chapters as appropriate).

1.7.1 Written Statement (Volume 1)

The introductory chapters (**Chapters 1-4**) of this ES describe the Proposed Development and the legal and policy framework within which the application will be determined. This includes details of how the Proposed Development was selected and how the design and layout has evolved through the environmental assessment to reflect and mitigate potential effects. It also includes a summary of the planning policy context.

Chapters 5-20 contain the individual assessments undertaken for the identified environmental issues, with **Chapter 15: Summary of Residual Impacts and Schedule of Mitigation** providing a summary of all proposed residual impacts and mitigation and **Chapter 20: Cumulative Effects** which considers the marine cumulative effects associated with the Proposed Development. The complete assessment of the likely significant effects of the Proposed Development is contained within this document, and is supported by technical appendices. The structure of the relevant chapters is listed below:

- Chapter 1: Introduction
- Chapter 2: Project Description
- Chapter 3: Development Design and Alternatives
- Chapter 4: Planning Policy
- Chapter 5: Hydrogeology and Geology
- Chapter 6: Air Quality and Odour
- Chapter 7: Noise
- Chapter 8: Traffic and Transport
- Chapter 9: Hydrology and Flood Risk
- Chapter 10: Aquatic Ecology
- Chapter 11: Terrestrial Ecology
- Chapter 12: Socio Economic
- Chapter 13: Cultural Heritage
- Chapter 14: Landscape and Visual
- Chapter 15: Summary of Residual Impacts and Schedule of Mitigation
- Chapter 16: Navigation
- Chapter 17: Water Quality
- Chapter 18: Coastal Processes and Geomorphology
- Chapter 19: Marine Ecology
- Chapter 20: Cumulative Impacts

1.7.2 Figures (Volume 2)

Accompanying figures referred to in the assessments in Volume 1 are contained in a separately bound document with figure numbering corresponding to the chapter numbers e.g. Figure 1.1, 2.1 etc.

1.7.3 Technical Appendices (Volume 3)

The technical appendices are consolidated into a separately bound document comprised of the documents listed in **Table 1.1**.

Table 1.1: Technical Appendices

| Chapter | Appendix | Name |
|---|----------|--|
| 1. Introduction | 1.1 | Screening and Scoping Opinion |
| | 1.2 | Gap Analysis Table |
| | 1.3 | Gate Check Table |
| | 1.4 | Pre-Application Consultation (PAC) report |
| 2. Project Description | 2.1 | Proposed waste water and surface water drainage layout |
| 5: Hydrogeology and Geology | 5.1 | Summary of previous assessments. |
| | 5.2 | Fairhurst drawings. |
| | 5.3 | Excavated material chemical testing and screening assessment |
| 6: Air Quality and Odour | 6.1 | Air Quality Technical Appendix |
| 7: Noise | 7.1 | Definitions |
| | 7.2 | Sound Level Meter Calibration Certificates |
| | 7.3 | Detailed Baseline Noise Survey Results |
| | 7.4 | Noise Source Data |
| 9: Hydrology and Flood Risk | 9.1 | Flood Risk Assessment |
| | 9.2 | Hydrogeomorphology Report |
| 11: Terrestrial Ecology | 11.1 | Target Notes |
| | 11.2 | Phase 1 Habitat Survey Report produced by Dr Mary Elliott |
| | 11.3 | Otter Survey Report produced by Dr Mary Elliott |
| 13: Cultural Heritage | 13.1 | Gazetteer of Cultural Heritage Assets |
| 14. Landscape and Visual | 14.1 | Landscape Assessment Tables |
| | 14.2 | Visual Assessment Tables |
| 16. Navigation | 16.1 | Navigational Risk Assessment |
| 17. Water Quality | 17.1 | Initial Dilution Assessment |
| 18. Coastal Processes and Geomorphology | 18.1 | Kyleakin Pier Development Hydraulic Modelling |
| | 18.2 | Kyleakin Geotechnical Survey |
| | 18.3 | Kyleakin Pier Dredging Addendum, |
| | 18.4 | Response to comments made by SNH |
| | 18.5 | Response to comments made by SNH as applied to the addendum |
| 19. Marine Ecology | 19.1 | Survey for Altanavaig Pier |
| | 19.2 | Status of Cetaceans in the Vicinity of the Isle of Skye |
| | 19.3 | Predicted Sound Levels |
| | 19.4 | Modelling Outputs of Piling and Dredging Off the Isle of Skye |
| | 19.5 | Data on seal haul out sites and distribution in relation to the Marine Harvest fish feed plant |

1.8 Assessment Methodology

The EIA Regulations require “a description of the likely significant effects of the development on the environment, which should cover the direct effects and any indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative effects of the development”. Similarly the MWR state that the following is required within the ES “description of the likely significant effects on the factors specified in regulation 21A(2)(a) to (e) must cover the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the project and the regulated activity”.

In the ES, the term ‘effects’ has been used to mean changes to environmental aspects resulting from the Proposed Development. It is considered to mean the same as the term ‘impacts’ which is also used in EIA.

Unless qualified elsewhere within the ES, the following interpretation is applied with regard to effects. Short-term effects are those which extend over a short period only and are typically those associated with the construction or decommissioning periods or other limited period. Other temporary effects which persist for less than the life of the Proposed Development are described as medium-term, with those extending to the full lifetime of the Proposed Development described as long-term. Any effects which persist beyond the life of the Proposed Development are considered permanent. Effects with duration of up to long-term are considered reversible, whereas permanent effects are considered irreversible. Where permanent or long-term effects occur this has been identified.

Assessment criteria are required in order to evaluate environmental effects. Significance is generally determined through a combination of the sensitivity of a receptor to an effect and the magnitude of the change. This process is summarised as follows:

- identification of baseline conditions of the site and its environs, including the sensitivity of receptors that may be affected by changes in the baseline conditions;
- consideration of the magnitude of potential changes to the environmental baseline;
- assessment of the significance of effect taking into account sensitivity of receptors and magnitude of effect;
- identification of appropriate mitigation measures; and
- assessment of significance of residual effects taking account of any mitigation measures.

The above approach does not, however, apply to all topics covered in the ES; alternative approaches were therefore developed as appropriate, and are described and justified in the relevant chapter(s) of the ES as appropriate.

1.9 Screening, Scoping and Gate Check

As the Proposed Development includes terrestrial and marine development, both planning permission and marine licences are required.

1.9.1 Screening

The Applicant submitted a request for a Screening Opinion to THC (LPA ref: 16/01491/SCRE) and MS-LOT in April 2016. As a result of the screening process a full EIA was considered to be required for the Proposed Development.

1.9.2 Scoping

Scoping has been carried out as part of the EIA conducted for the Proposed Development to determine the content and extent of matters to be included as part of the EIA process. Scoping helps to clarify key issues and promotes dialogue with consultees and other stakeholders concerning key environmental issues and proposed methods for survey, evaluation and assessment. It was undertaken during the early stages of the project, according to the guidance provided in PAN 1/2013: Environmental Impact Assessment (Scottish Government, 2013) (Ref 1-3).

A request for a Scoping Opinion was submitted by the Applicant to THC in April 2016 (LPA ref: 16/01492/SCOP) in accordance with Regulation 14 of the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011.. Under Regulation 13 and Schedule 4 of the MWR a request for a

Scoping Opinion was also made to MS-LOT (as the appropriate authority) in April 2016 (MS-LOT ref: 16/01492/SCOP). A copy of the Screening and Scoping Opinion received from MS-LOT on 27th June 2016 is provided in **Appendix 1.1**.

The scoping report issued with the request for a Scoping Opinion provided an outline description of the Proposed Development and the Development Area location, and set out the perceived likely environmental effects that could result from the Proposed Development. A copy of the Scoping Opinion for the Proposed Development is provided in **Appendix 1.1**.

1.9.3 Gate check

It is recommended by Marine Scotland that, prior to formal submission, an ES undergoes a 'Gate Check'. This process is carried out to assist the developer by ensuring that key points for inclusion in the ES, as identified within the Scoping Opinion, have been covered. This process also gives the developer the opportunity to clarify how and why a specific point has been covered.

In support of the application and at the request of MS-LOT, a 'Gap Analysis' table has been included within this ES (see **Appendix 1.2**) which provides a breakdown of the summary points from the Scoping Opinion (see **Appendix 1.1**), along with a reference to the location(s) within the ES where a specific point has been covered.

The ES along with all supporting documentation for the Marine Licence applications were submitted to MS-LOT for 'Gate Check' in March 2017. On the 28th April 2017 a number of clarifications and recommendations were requested by MS-LOT. These are provided in a 'Gate Check' table along with all the responses to the points raised by MS-LOT (**Appendix 1.3**). Within this table are references to the location(s) within the ES (or other supporting documents) where a specific point/recommendation has been covered. Where there is an exception to a given recommendation, a full justification is provided.

Further details on consultations and how they have been incorporated to the EIA process and the Proposed Development design are included within specific chapters and within the technical appendices where relevant. However, as per the Marine Licensing (Pre-Application Consultation) (Scotland) Regulations 2013 ('the Regulations'), Public Information Days (PIDs) were held on the 18th and 19th April 2016 as well as the 28th and 29th June 2016. . As part of this process a Pre-Application Consultation (PAC) report has been submitted with the Marine Licence application(s). The PAC report describes the activities undertaken by the Applicant before both the planning application and MLA were submitted to help communicate and engage with the local community and stakeholders (**Appendix 1.4**).

1.10 References

- Ref 1-1: The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011 available at: <http://www.legislation.gov.uk/ssi/2011/139/regulation/2/made>
- Ref 1-2: Marine Works (Environmental Impact Assessment) (Amendment) Regulations 2017 available at: http://www.legislation.gov.uk/uksi/2017/588/pdfs/uksi_20170588_en.pdf
- Ref 1-3: PAN 1/2013: Environmental Impact Assessment (Scottish Government, 2013) available at: <http://www.gov.scot/Publications/2013/08>