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Kyleakin Fish Feed Factory

Marine Harvest

Environmental Statement – Non-Technical Summary (NTS)

May 2017

FINAL





Environmental Statement – Non-Technical Summary (NTS)

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1. Introduction

This non-technical summary (NTS) provides a summary of the Environmental Statement (ES) which has been submitted by Marine Harvest (Scotland) Ltd (hereafter referred to as 'the Applicant') to support applications for Marine Licences and planning permission for the proposed development of a Fish Feed Plant at Allt Anavig Quarry, Kyleakin, Isle of Skye (hereby referred to as the 'Proposed Development') and regulated activities required as part of this proposal.

It is expected that the Proposed Development will produce up to 170,000 tonnes of fish feed per year, specifically salmon feed for Marine Harvest's farming operations.

As the Proposed Development includes terrestrial and marine development, both planning permission and marine licences are required from the appropriate authorities, which in this case are The Highland Council (THC), as the Local Planning Authority, and Marine Scotland Licencing Operations Team (MS-LOT).

The planning application was made to THC for planning permission under the Town and Country Planning (Scotland) Act 1997 (as amended). A full set of plans illustrating the Proposed Development and supporting documents was submitted with the planning application. THC confirmed on 2nd July 2016 in their screening response that any planning application for the Proposed Development would require a supporting ES. The ES presents information on the identification and assessment of the potential environmental effects of the Proposed Development. The purpose of the ES is to provide information to THC (as the Local Planning Authority), statutory consultees, local residents and other interested parties about the Proposed Development and its predicted environmental impacts. This is to assist them making an objective judgement and consider the acceptability of the Proposed Development within the context of national, regional, and local planning, and environmental policy. Planning permission was granted for the terrestrial elements of the Proposed Development by THC under reference 16/03869/FUL on 2nd March 2017.

The marine aspects of the Proposed Development include construction of a pier extension and its associated capital dredging, laying of a long sea outfall pipeline, construction of a temporary pier, and land reclamation. 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. Consequently, Marine Harvest aims to progress the Proposed Development by submitting separate applications for these activities. As the appropriate authority it was determined by MS-LOT that the proposed works fall within Annex I, Section 8(b) of the EIA Directive (Directive 85/337/EEC) and as such that an Environmental Impact Assessment is required and, therefore, the ES produced is used to support the Marine Licence applications.

Jacobs UK Limited (Jacobs) was commissioned by the Applicant to produce an ES (and supporting documents) to accompany the detailed planning application and MLAs for the Proposed Development. Jacobs is a registrant with the Environmental Impact Assessment (EIA) Quality Mark scheme awarded by the Institute of Environmental Management and Assessment (IEMA).

The NTS provides a summary and description of the Proposed Development, its likely environmental effects and the mitigation measures proposed to address these effects.

1.1. 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. In Scotland, the Applicant operates 45 sea farms, plus five freshwater loch sites and two hatcheries (in Lochailort and Inchmore), a harvest station in Mallaig and a processing plant in Fort William. The head office is in Rosyth and all produce is Atlantic salmon.



1.2. Commenting on the Application

Representations to the application 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



2 Approach to the EIA

The planning application for the Proposed Development was submitted under the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011. 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 are under the Marine Works (Environmental Impact Assessment) (Amended) Regulations 2017 (herein referred to as 'MWR'). The requirements of the MWR is discussed in further detail within ES **Chapter 1: Introduction**.

These regulations define which projects should be subject to EIA, what information should be included within the EIA, who should be consulted as part of the EIA process, and procedures for submitting and advertising an ES.

EIA is assessment of the potential effects of a proposal on the environment, including effects on human activity. The outputs, in the form of an ES, are used to inform the decision making process of the determining body, in this case THC for the planning process, and MS-LOT for the Marine Licence applications.

The process, as applied to the EIA for the Proposed Development is sequential and involves the following key stages:

- Stage 1: **Screening**: preliminary consultations to understand and confirm if an EIA is likely to be required for a specific proposal. The Applicant submitted a request for Screening Opinion to THC and MS-LOT in April 2016. In their screening response both THC and MS-LOT confirmed that an EIA was required for the Proposed Development. MS-LOT also confirmed that two separate Marine Licence applications would be required. A copy of the Screening and Scoping Opinion received from MS-LOT on 27th June 2016 is provided in **Appendix 1.1** of the ES.
- Stage 2: **Scoping**: consultation with relevant statutory consultees and other stakeholders to obtain their views on the proposal; identify existing environmental information; identify potential effects and agree methods for the assessment of these effects. A request for a Scoping Opinion was submitted by the Applicant in April 2016 to THC and MS-LOT in April 2016. Responses (Scoping Opinions) were received and documented from a number of consultees, and a copy of the Screening and Scoping Opinion received from MS-LOT is included in **Appendix 1.1** of the ES.
- Stage 3: **Baseline Studies**: identification of existing environmental conditions through review of existing information and monitoring and field surveys as required. In addition to the baseline work a number of modelling studies were carried out including hydrodynamic and underwater noise modelling.
- Stage 4: **Assessment of Effects**: assessment and prediction of potential effects on the environment, and quantification of these where possible that may arise from the construction, operation and decommissioning of the Proposed Development including:
 - assessment of significance of effects: an assessment of the significance at local, regional, national and international scales of potential effects;
 - mitigation: the identification of measures to reduce these effects;
 - residual effects: identification of residual effects which cannot be avoided through mitigation.
- Stage 5: **Environmental Reporting**: preparation of the ES and supporting documentation.
- Stage 6: **Planning and Marine Licence Application and Determination**.

2.1. EIA and the Design Process

The methodologies followed in the production of the ES for the Proposed Development have been carried out to ensure a robust assessment of effects. Good practice advises that EIAs should be treated as an iterative



process rather than as a one-off, post-design environmental appraisal, and that interested parties be consulted at an early stage to identify key impacts and design appropriate mitigation.

In this way, the findings from the EIA can be fed into the design process, leading to the production of a project which achieves a 'best fit' within the environment. This approach was used throughout the EIA of the Proposed Development. Where potentially adverse environmental effects were identified through preliminary investigations as part of feasibility work, or later in the detailed EIA, consideration was given as to how the scheme design should be modified to design out adverse environmental effects, or where this was not possible, to determine appropriate mitigation.

Where likely significant adverse impacts have been predicted, or sensitive environments are identified, the results of the EIA have been used to influence the size, type, construction details and location of the Proposed Development. Where it has not been possible to reduce or eliminate a likely significant environmental effect through sensitive design alone, the results of the EIA have been used to identify the need for appropriate mitigation measures.

2.1.1 Consultation

The Applicant submitted a scoping report to THC in April 2016. The preparation and submission of a scoping report allows the consenting authority to view a summary of relevant information for the development. The consenting authority may then consider this report, in consultation with the relevant statutory consultee, and where appropriate, non-statutory consultees, and provide their opinion as to what the EIA scope should comprise.

In regard to the marine aspects of the Proposed Development, the Applicant requested a screening and Scoping Opinion from MS-LOT under Regulations 11 and 13 from Schedules 2 and 4 of the Marine Works (Environmental Impact Assessment). In June 2016, the Applicant received a Screening and Scoping Opinion within which it was determined by MS-LOT that an EIA would be required. MS-LOT consulted with the appropriate consultation bodies in reaching their Scoping Opinion.

In addition to scoping, the Applicant's project team engaged, and continues to engage, in extensive pre-application consultation with statutory consultees and other parties to assist in the design of the Proposed Development and obtain information relevant to the Development Area (as described in Section 3 below) within which it will be situated. Changes to the Proposed Development that have occurred since the initial consultation have been passed on to relevant consultees.

Over the course of the pre-application and application processes described the following have been consulted:

- Marine Scotland Science;
- Maritime and Coastguard Agency.
- Marine Planning & Policy;
- Northern Lighthouse Board;
- Scottish Natural Heritage (SNH);
- Scottish Environmental Protection Agency (SEPA);
- Ministry of Defence;
- Transport Scotland;
- Crown Estates;
- THC Environmental Health;
- Harbour Master;
- THC Building Standards;
- THC Contaminated Land;



- THC Landscape Officer;
- THC Flood Risk Management Team;
- THC Development Plans;
- THC Coastal Planner;
- Association of Salmon Fishery Boards;
- British Shipping;
- UK Chamber of Shipping
- Defence Infrastructure Organisation;
- Health and Executive;
- Historic Environment Scotland;
- West Coast Inshore Fishery Group;
- The Highland Council;
- Marine Safety Forum;
- Royal Yachting Association;
- Royal Society for the Protection of Birds;
- Scottish Fishermen's Federation;
- Scottish Fishermen's Organisation;
- Scottish Wildlife Trust;
- Transport Scotland;
- Whale and Dolphin Conservation;
- Kyle Community Council;
- Portree Fishery Office;
- Visit Scotland;
- Skye District Salmon Fishery Board;
- Scottish Water;
- Hebridean Whale and Dolphin Trust; and

2.1.2 Public Consultation

Public Information Days (PIDs) were held on 18th and 19th April 2016 in Kyleakin Village Hall and at the Free Church Hall in Kyle. The purpose of these events was to inform the local community of the Proposed Development proposals and to invite their comments at that stage. It was following feedback from the first round of PIDs that the Development was amended, as follows:

- The initial 250m long extension to the existing Pier was reduced and made into an L-shape, which is more effective for operational purposes and reduces concerns associated with the scale and intrusive nature of the previously designed pier.
- The colour scheme of the buildings was amended to reduce visual impact of the Proposed Development upon the surrounding area.
- The location of the silos was moved to the rear of the Proposed Development to help reduce visual impacts.
- A second round of PIDs was held in Kyle Free Church Hall on 28th June 2016 and Kyleakin Village Hall on 29th June 2016. The amended Proposed Development was tabled and the feedback received generally welcomed the modifications. Further details of public consultation methods and a record of issues raised by



members of the public throughout the consultation process and how these have been addressed by the Applicant is provided in the Pre-Application Consultation (PAC) Report which has been submitted to THC and MS-LOT in support of the planning and Marine Licence applications. The formulation and submission of PAC reports for a development the size of the Proposed Development is a mandatory requirement under Regulation 4 of the Town and Country Planning (Hierarchy of Developments) (Scotland) Regulations 2009 and The Marine Licensing (Pre-application Consultation) (Scotland) Regulations 2013. A copy of the PAC Report for the MLA is provided in **Appendix 1.4** of the ES.

Members of the public have the right to comment on an application and have their comments taken into consideration in the determination of the application, however comments must:

- be received before a formal decision is made; and
- relate to material planning considerations.

The Scottish Government outlines two main tests in deciding whether a consideration is material and relevant:

- it should serve or be related to the purpose of planning. It should therefore relate to the development and use of land, and
- it should fairly and reasonably relate to the particular application.

Scottish Government Planning Circular 3/2013 states that “*The range of considerations which might be considered material in planning terms is very wide and can only be determined in the context of each case. It further asserts that it is for the decision maker to decide if a consideration is material and to assess both the weight to be attached to each material consideration and whether individually or together they are sufficient to outweigh the development plan. Where development plan policies are not directly relevant to the development proposal, material considerations will be of particular importance*”.



3 Project Description

3.1. The 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 1.1**). 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.

There is an existing pier from a previous quarry at the Proposed Development's location. 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 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 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 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.

3.2. Marine Licence Applications (MLA)

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.

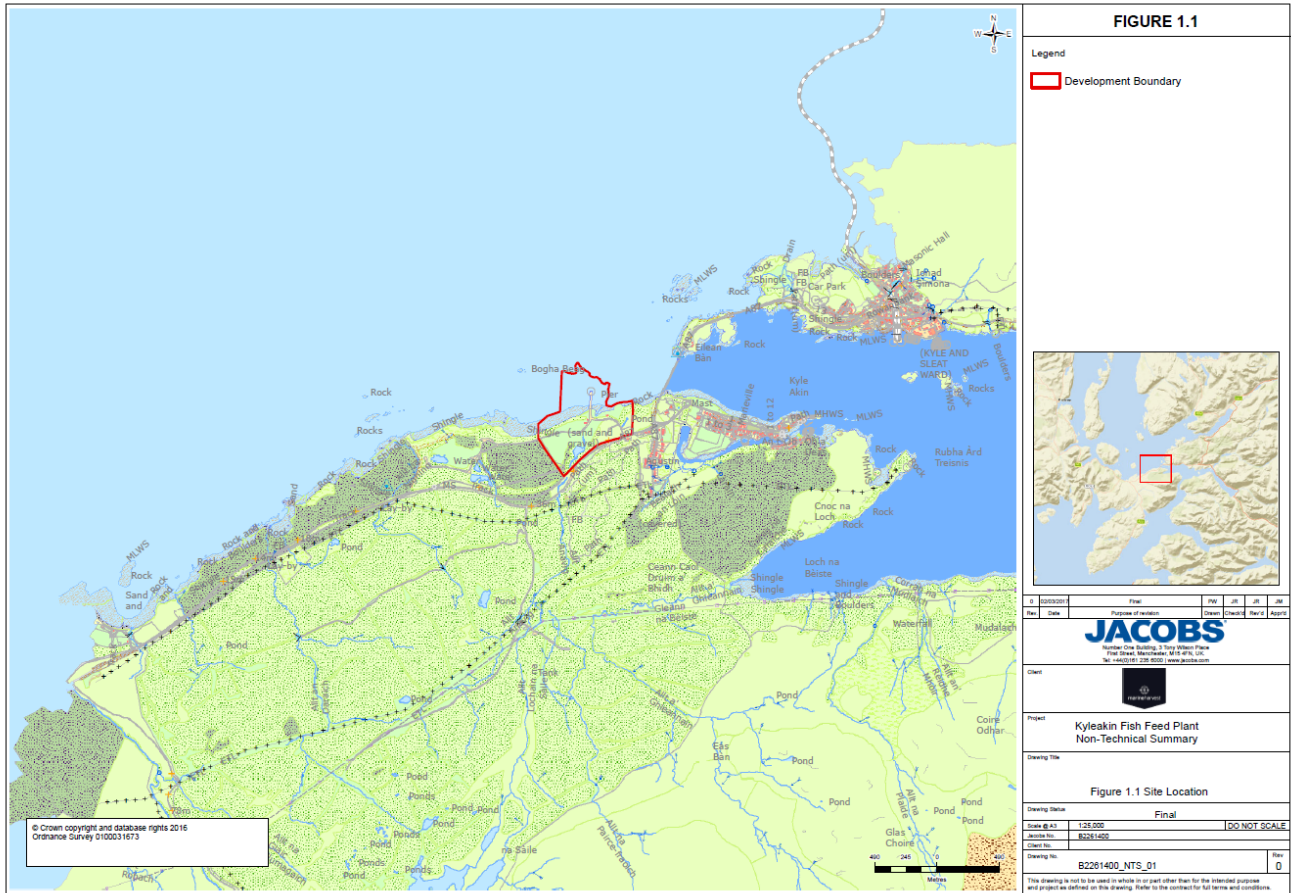


Figure 1.1 The Development Area of the Proposed Development at Allt Anavig quarry.

3.3. Operation of the Proposed Development

The Development Area covers approximately 350,000m² of which approximately 217,000m² is the terrestrial component and 133,000 m² is the marine component. The projected production from the fish feed plant will be 170,000 tonnes of fish feed per year, particularly salmon feed for the Applicant’s farming operations. These operations are based on two production lines for conventional salmon feed and one off line for medicated / functional feed. The Proposed Development will have a planned operational life of up to 50 years for the foundations, building structures and pier and quay. Installations are designed and built to meet a 25 year lifetime. Decommissioning impacts are considered to be the same or less than construction, therefore an additional assessment is not required.

The Proposed Development will operate for approximately 66,000 hours or more per year and will therefore need to be designed and constructed to maintain these opening hours. The operation of the facility will require a minimum of 55 full time staff operating in shift patterns. The Kyleakin ES **Chapter 2: Project Description** contains more detailed information in regard to the operation of the Development.

3.4. Proposed Development Components

The principal components of the Proposed Development and brief description of their purpose are detailed below and on **Figure 1.2**. The principal components of the Proposed Development are:

- 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 60m. In summary, and 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

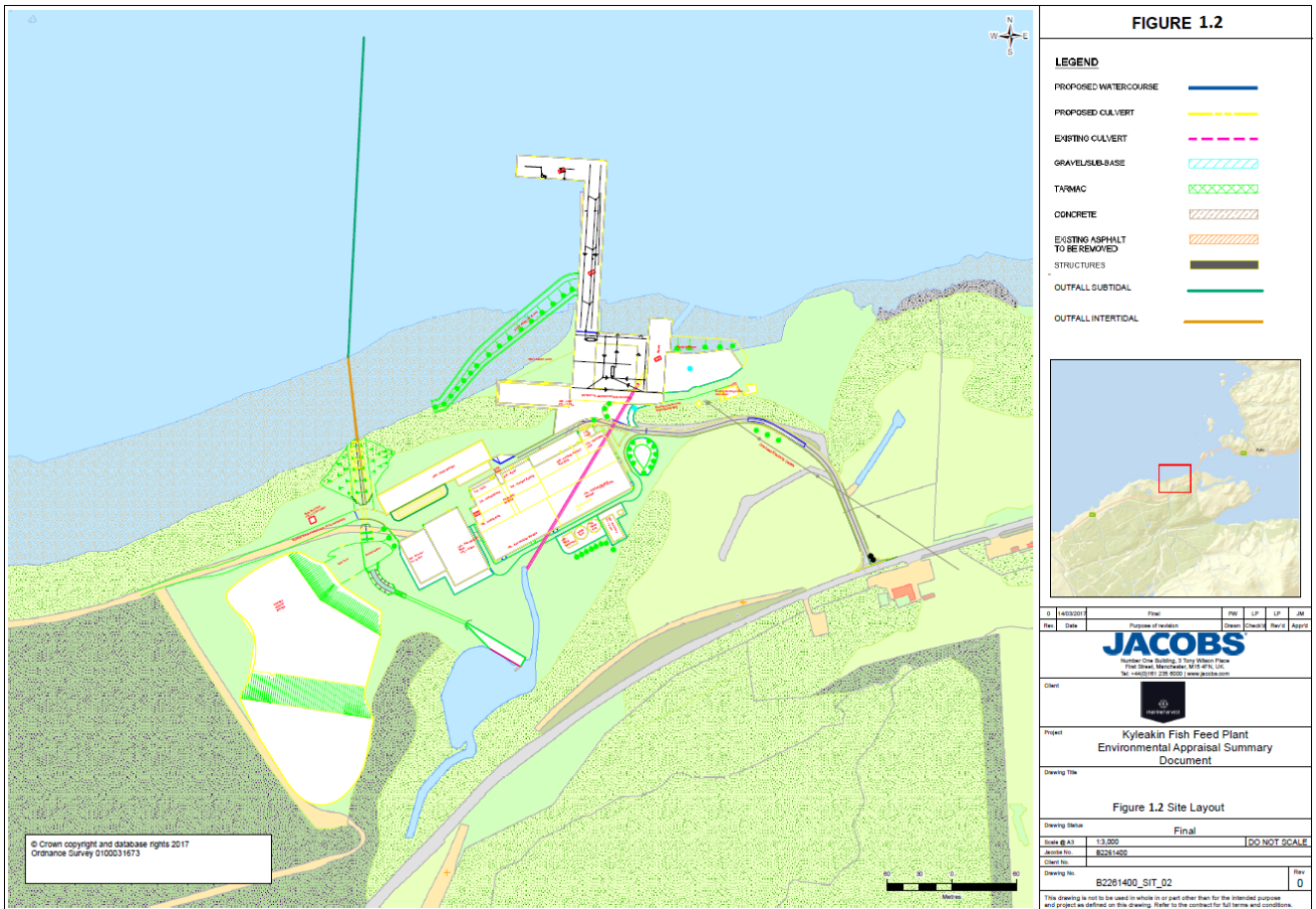


Figure 1.2 Site layout of the Proposed Development

3.4.1 The Process

The plant capacity is targeted at 170,000 tonnes a year of salmon feed. The main components in fish feed are protein, fat, vitamin and minerals which are classed as raw materials. The raw materials used in salmon feed are divided into four groups:

- macro raw materials;
- midi raw materials;
- micro raw materials;
- different liquids.

The final fish feed products will be produced through the processes outline below in Diagram 1: Feed Manufacture Flow Diagram. More detail on these processes is provided in **Chapter 2: Project Description**.

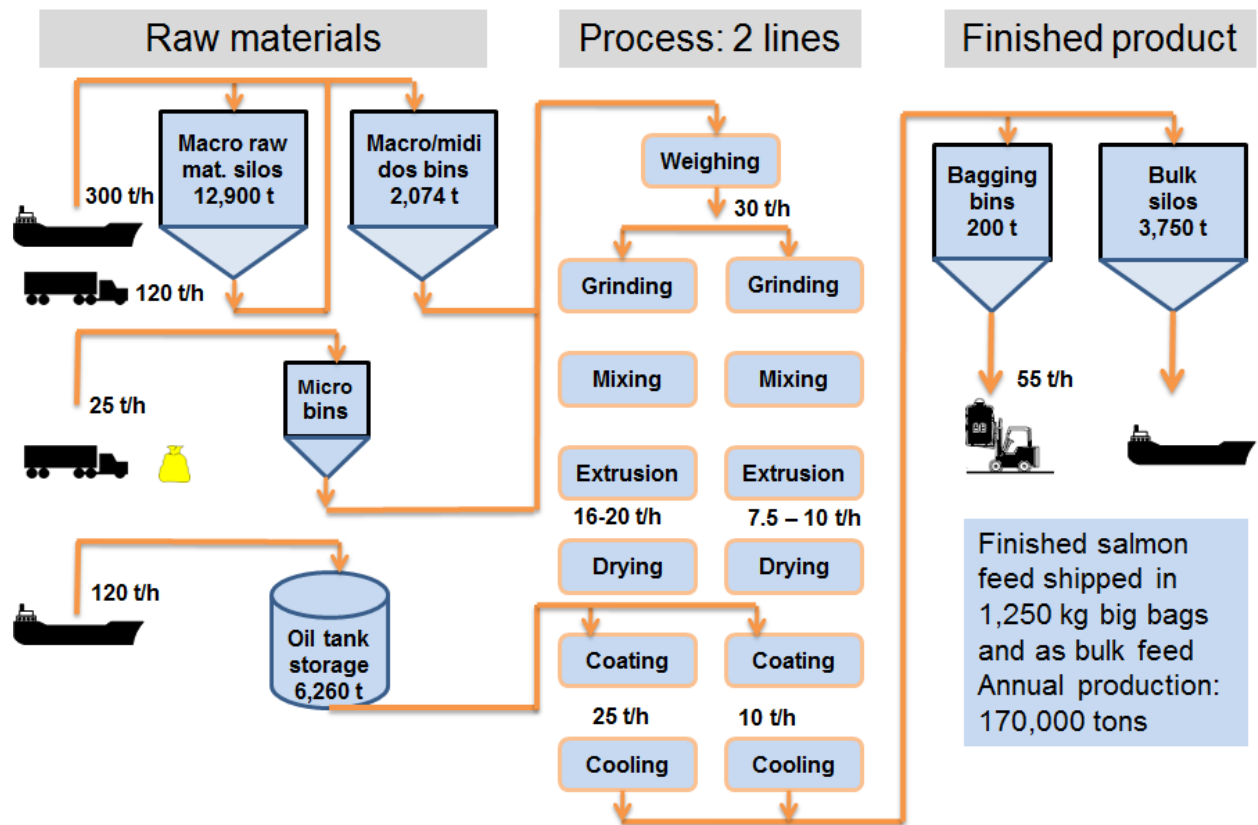


Diagram 1: Feed Manufacture Flow Diagram

3.4.2 Main Road Access and Site Entrance

The Proposed Development will be accessed via the existing access of the A87 trunk road shown on **Figure 1.2: Site Layout**. The A87 trunk road is a route of regional significance which travels between Uig in the Isle of Skye and the A82 to the south of Fort Augustus. The A87 is single carriageway along its entire length. This access will serve all construction and delivery vehicles including Heavy Goods Vehicle (HGV) and Large Goods Vehicle (LGV) and will be utilised both the construction and operational phases of the Proposed Development.

During construction it is estimated that 25,236 two way movements over the 17 month construction period will occur. This figure includes 4,423 HGV movements and 20,812 LGVs. It is estimated that HGVs accessing the Proposed Development will average approximately 12 two-way movements per day. In addition to these HGV movements, 55 full time staff shall be accessing the site operating on shift patterns, with 3 shifts/24hrs, so these journeys will be spread throughout the day.

3.4.3 Internals Roads

The layout of internal access tracks (**Figure 1.2: Site Layout**) has been designed to allow access to the site and for the movement of vehicles within the Development Area including private cars and delivery trucks. The surface of the internal roads will be crushed rocks (gravel) and asphalt. The area to the west of the Proposed Development beside the Raw Material Silos will be used for the turning of trucks and other unloading / loading vehicles.

3.4.4 Parking Facilities

The area for parking is to be located as shown in the site layout plan (**Figure 1.2: Site Layout**) and is designed for approximately 30 cars, to be agreed with THC. The surface is concrete / hard finished and no marking will be provided.



3.5. Utility Connections

3.5.1 Power and Energy Supply

The Proposed Development requires the use of a steam boiler to supply thermal energy for extrusion and drying.

Oil free compressed air is required for operating the pneumatic equipment in the plant as well as for other purposes. The compressor room will be located on Level 1 of the main process building.

A bio-bed system is proposed as the best available solution for cleaning the process air of odorous substances. Furthermore, an air stack will be used to discharge the process air at around 60m above ground level.

3.5.2 Water Supply

It is envisaged that water will be abstracted from the Allt Anavig burn, using the existing abstraction licence. The use of fresh water for production or cleaning purposes will be limited to the minimum possible with re-circulation, CIP techniques, or "dry cleaning methods".

3.5.3 Gas Supply

Establishment of a bulk storage facility close to the site will be provided which will provide gas to the factory. The foundations, bund walls, supports for the tanks, fencing, security and access into the compound will be constructed in accordance with all relevant standards, specifications and requirements from Highland Council, SEPA, the N-Gas supplier and other relevant parties.

3.5.4 Waste Water, Foul Water and Surface / Storm Water

An on-site foul sewage treatment facility both during construction and for the operation of the plant will be introduced to manage foul/sanitary water. With respect to surface/storm water, in the final design, the surface water will be collected and treated from roofs and hard standings for process purposes. During construction, the Contractor is to ensure that any wastewater is treated and disposed of to the approval of the local authority and SEPA.

3.5.5 Waste Disposal

The required drainage systems on site shall be designed and constructed to deal with carrying all waste water flows without blockage and requiring a minimum of maintenance. These will include process waste water, sanitary water, storm water, surface water and oily water.

3.5.5.1. Process Waste Water

The process wastewater will go through a two-step treatment process at an on-site treatment plant before being discharged into the sea. The major raw materials that water can come into contact with are outlined below:

- Fishmeal, (Standard and LT meal);
- Vegetable meals and grain;
- Wheat;
- Fish oil;
- Vegetable oil;
- Fish Protein Concentrate (FPC);
- Pigment; and
- Vitamin and mineral mix.



3.5.5.2. Foul / Sanitary Water (Sewage Treatment)

The foul / sanitary water will be collected by a separate piped system and will be treated in an onsite sewage treatment works (bio disc or similar). The sizing and design of the onsite treatment works will be governed by the requirements during the construction and / or operation of the Proposed Development. Depending on falls, pumping may be required to convey the foul / sanitary water to the treatment works.

3.5.6 Surface Water: Storm Water

Roof water and storm water around the buildings will be collected by a separate piped system that is conveyed either by gravity or by a pumped system via a SUDs treatment facility prior to discharge to the sea.

3.5.7 Surface Water: Oily Water

Storm water from the tank yard, oil room and the defined loading area for trucks next to the tank yard will be led through an oil / grease trap before discharge into the Loch Alsh. All areas where there is a risk of oil spillage shall be drained via a suitable Class 1 oil-water separator. A comprehensive Failure Modes and Effects Analysis (FMEA) shall be undertaken, to demonstrate the risk of oil or other hazardous substance escaping to the environment is as low as reasonably practicable.

Oily water drainage systems shall be provided for vehicular parking areas and plant and equipment from which oil spillages occur such as liquid room and slurry room.

The design of oily waste water drainage shall incorporate bunded areas, oil interceptors and traps.

All water potentially contaminated by oil shall pass through an oil/water separator fitted with oil detectors and automatic isolation valves. The discharge from the oil/water separator shall contain no visible oil or grease.

3.6. Construction Process

The construction of the Proposed Development will comprise the following key elements. These are listed below in sequence, however, some will overlap and some activities will be undertaken in parallel:

Section	Construction Activities
Advance Works	<ul style="list-style-type: none"> Environmental mitigation to be implemented in advance of the main construction contract. Advance services diversions.
Roadworks	<ul style="list-style-type: none"> Site establishment. Temporary and permanent fencing. Site clearance. Temporary and permanent surface water outfalls. Establishment of services. Topsoil stripping and storage. Pre-earthworks drainage. Earthworks (cuttings and embankments). Environmental bunds and landscaping. Drainage, service ducts and chambers. Topsoil spreading, seeding and turfing. Roadwork finishes including safety barriers, signs, road markings. Accommodation works.
Structures	<ul style="list-style-type: none"> Construction of buildings. Culvert construction.
Environmental	<ul style="list-style-type: none"> Earthworks mitigation. Landscape and ecological mitigation planting.



Section	Construction Activities
Temporary Works	<ul style="list-style-type: none"> • Temporary traffic management to maintain traffic flows where roads are narrow or are affected by construction of the Proposed Development. • Temporary balancing ponds at drainage outfalls.
Maintenance	<ul style="list-style-type: none"> • Landscaping maintenance. • Routine maintenance and defects repair works. • Winter maintenance.
Marine Construction Activities	<ul style="list-style-type: none"> • Land reclamation. • Piling of pier, quayside and slipway. • Capital dredging works for new berth pocket at the side of the pier and the foundation of the caisson outer berth. • Construction of the foundation bund and concrete base for the caisson outer berth. • Piling of crane beam and concrete works to the new pier. • Completion of the caisson outer berth. • Placing of long sea outfall pipe in intertidal and subtidal environment. • Construction of temporary pier for landing of dredged material.
Marine Maintenance Activities	<ul style="list-style-type: none"> • Maintenance dredging. • Maintenance of outfall.

A Construction Method Statement (CMS), Construction Environment Management Plan (CEMP), a Site Waste Management Plan (SWMP), a Materials Management Plan (MMP) and a Pollution Prevention Plan (PPP) will be prepared to ensure compliance with any recommendations set out in the ES, planning conditions and best practice.

3.7. Maintenance of Proposed the Development

The Proposed Development will be an easy-to-maintain, well finished factory where cleanliness and minimum maintenance has been incorporated into the details and execution. Where maintenance is required it is to be simple and safe. The Proposed Development will also be designed and executed at the necessary strength to tolerate the impacts generated in individual areas whether it is mechanical, technical or chemical area.

Whilst some functions of the Proposed Development, such as the Air Stack can be operated unattended, a minimum of 55 employees will be required during operation. These roles will include operating extruders and all parts of the process including bagging, loading/unloading vessels, fork lift driving, filling raw materials, quality control and preventive and planned maintenance. In addition, other specialist roles during operation will consist of a production manager, a logistics manager, a maintenance manager and a Quality Assistant manager.



4 Development Area Selection and Design

There is an expectation from the Scottish Government as expressed in Scottish Planning Policy (SPP) 2014 that the merits of an individual proposal will be carefully considered against the full range of environmental, community, and cumulative impacts, and therefore the onus is on the developer to demonstrate that the site selected is suitable.

Marine Harvest carried out an extensive period of assessment considering sites across the West Coast of Scotland for the proposed Fish Feed Plant. The Proposed Development required particular technical considerations to allow an efficient and sustainable production of fish feed.

The Development Area at Allt Anavig is being proposed by the Applicant for a number of reasons:

- It has close proximity to the sea with accessible deep water which allows efficient receipt of raw material and delivery of finished product.
- The Proposed Development is situated in an area which is catered by an existing pier which can be extended.
- The existing dam caters for the needs of the feed plant, without added utilities cost.
- The Development Area is zoned for industrial use in the Highland Wide Local Development Plan, which was previously used as a quarry and therefore has a large amount of land available for the Proposed Development.
- The location of the Development Area is close to a local workforce population.
- The Skye area is considered a central location to all Marine Harvest sites in Scotland including Blar Mhor Processing Plant and various seawater and freshwater farms allowing feed to be efficiently delivered.

The Development Area selection process also considered potential impacts on natural and built environment. For example potential impacts on air quality, noise and odour, hydrogeology and geology, traffic and transport, hydrology and flooding, aquatic and terrestrial ecology, socio economic factors and cultural heritage. These have all been considered during the Development Area selection process and the design of the Development (section 5).

4.1. Alternatives

There is an expectation from the Scottish Government as expressed in Scottish Planning Policy 2014 that the merits of an individual proposal will be carefully considered against the full range of environmental, community, and cumulative impacts, and therefore the onus is on the Applicant to demonstrate that the site selected is suitable.

Other potential sites throughout Scotland were assessed along with the Allt Anavig Quarry for the Proposed Development to help briefly identify which site is more suitable for the Proposed Development in terms of location, size, access arrangements and power/water supply.



5 Environmental Assessment

The following aspects were investigated to assess the environmental impact of the Proposed Development:

- Hydrogeology and Geology
- Air Quality and Odour
- Noise
- Traffic and Transport
- Hydrology and Flood Risk
- Aquatic Ecology
- Terrestrial Ecology
- Socio Economic
- Cultural Heritage
- Landscape and Visual
- Navigation
- Water Quality
- Coastal Processes and Geomorphology
- Marine Ecology
- Cumulative Impacts

A summary of the conclusions from each of these assessments is detailed below.

5.1. Hydrogeology and Geology

The potential effects on the geological and hydrogeological resources during the construction and operation of the Proposed Development were assessed. Particular attention was paid to the impacts on bedrock and superficial geology and risk of mineral extraction, impacts on groundwater and surface water quality, and the risk of contaminated land which may be affected by the Proposed Development activities.

A key aspect of the impact assessment associated with geology is to identify areas of proposed excavations. It is anticipated that 1.0m excavations will be constructed in the footprint of all buildings that comprise the Proposed Development. Piling is also expected to be widely used across the site.

However it is considered that bedrock geology will not be impacted and the potential results of piling will only be of negligible significance during construction and operation. Superficial geology will be reduced during construction however this has been measured at a negligible effect because of the widespread presence of these deposits elsewhere in the region and in the country. Peat excavation is expected to be localised and minimal and therefore effects are considered to be of slight significance. No mitigation is required.

Groundwater and surface water quality will be affected during both construction and operation. However the implementation of mitigation measures in relation to the protection of the water environment against pollution incident from dense networking of piles, construction of embankments and accidental spillage, is expected to reduce the potential impacts on groundwater quality and associated receptors to a residual effect of slight significance.

The assessment of constraints has identified contaminated land sources associated with previous land use and activities. Previous exploitation of resources from the quarry also imposes constraints on the development; for example, where land has become unstable due to mining which restricts the areas for development. Impacts to the environment and employee health and safety in relation to contaminated land include the migration of



ground gases to the surface. However the impacts due to contaminated land will be mitigated through safe systems of work and use of personal protective equipment. The implementation of mitigation measures in relation to contaminated land issues and direct / indirect impacts is expected to reduce potential effects to a residual impact of low significance during the construction phase and very low significance during the operational phase.

Overall the residual effects of the Proposed Development on the hydrogeological and geological environments following the implementation of avoidance and mitigation measures are considered to be of slight significance or negligible. With the adoption of a comprehensive Construction and Environmental Management Plan (CEMP), the incorporation of standard good practice techniques are implemented and therefore the potential changes to surface water and geology groundwater are not predicted to be highly significant.

5.2. Air Quality and Odour

An assessment of the potential effects on air quality and odour from the Proposed Development was undertaken. The primary effects include the release of dust emissions during construction, process odour emissions and combustion emissions to air from gas-fired boilers and the stack, and the impact of vehicle exhaust emissions from the vehicles accessing the site.

Existing constraints within and outside the Development Area have been identified which have determined the final design of the Proposed Development. Sites of Special Scientific Interest (SSSIs) which are designated at a national level, Special Protection Areas (SPA), Special Areas of Conservation (SAC), designated at a European level are located within the local vicinity of the Development Area. These act as a constraint to the Proposed Development as point source emissions of acidic compounds and nitrogen-containing species from the Proposed Development could potentially affect these sensitive habitats. Unnamed ancient woodlands are also adjacent to the southern Development Area boundary which can cause a constraint to the design as it will have to give consideration to ecological receptors. Also due to the nature of the area there are residential receptors and places of business or leisure where people may be exposed to air pollutants for short or long term averaging periods

The risk of dust soiling, human health impact and ecological impact during the construction stage was assessed to be low risk for earthwork, construction and track out activities and negligible for demolition activities. During the construction phase of the Proposed Development it will be important to control dust levels from these low risk activities. In order to avoid the potential for significant impacts from dust during the construction phase, a number of mitigation measures and dust control actions will need to be put in place at the site. This in turn will reduce construction dust nuisance to a minor or negligible impact.

During operation no additional mitigation measures have been identified for the control of the combustion plant as existing mitigation measures reduce the effect from the Proposed Development to levels considered to be not significant. However, for good practice, an Odour Management Plan would need to be developed to support the application to identify the measures taken to control odour in the area. The change in air quality as a result of the Proposed Development is considered to be slight or negligible. Therefore, the overall impact is considered negligible according to the assessment criteria.

5.3. Noise

A noise and vibration assessment was carried out to highlight the likely noise and vibration effects arising from the construction and operation of the Proposed Development. An assessment of the likely noise and vibration effects arising from the construction and operation of the Kyleakin Fish Feed Plant on marine ecology and nature conservation is presented in **Chapter 19: Marine Ecology**.

The locations chosen for the 2016 noise survey were selected to obtain baseline noise levels at the receptors nearest the Proposed Development that were most likely to be adversely affected by noise. A previous noise assessment by Vibrock in 2009 was also used to compare the noise levels with the 2016 noise survey as a check that the levels measured were consistent. It was considered that pile driving during construction would have the greatest potential for adverse noise effects. However the assessment showed that for this worst case construction activity, it is predicted that construction noise levels will not exceed the proposed daytime noise



limits, It was also anticipated that standard daytime construction working hours will be agreed with THC, with any construction work outside of these hours to be agreed in advance and subject to appropriate noise limit values.

It was also considered that during operation the worst case scenario for noise impacts would come from all plant/activities occurring simultaneously and continuously, and with a 3dB(A) character correction added to all noise sources. However it was concluded that no significant noise effects are predicted during the operation of the Proposed Development during the daytime period. Although operational rating levels are predicted to be greater than the existing background sound levels during the night-time period, it has been shown that the internal noise levels will be comfortably below the World Health Organisation (WHO) guideline night-time noise limit inside bedrooms at all noise sensitive receptors (NSRs). Therefore, it is deemed that the adverse night-time noise effects predicted will not be significant.

Given the distance to the nearest sensitive receptors, vibration during construction and operation of the Proposed Development is not expected to result in significant vibration effects.

5.4. Traffic and Transport

A transportation, traffic and access assessment was undertaken to identify the potential effects of increased road traffic expected as a result of the construction phase of the Proposed Development, and also review potential effects during operation. This assessment also includes environmental impacts in relation to accidents and safety, driver delay, fear, intimidation and pedestrian amenity/delay and severance during construction.

It is anticipated that the A87 trunk road (a route of regional significance which travels between Uig in the Isle of Skye and the A82 to the south of Fort Augustus) will mostly serve the Proposed Development. This is considered as a sensitive receptor throughout the assessment. The existing access to the quarry of the A87 will be utilised by the construction and operation traffic.

The majority of the construction material needed is expected to be transported to the site by road however the exact routes cannot be validated until the post-planning / pre-construction phase. The total number of offsite vehicle movements generated during the construction of the Proposed Development, which will be short term, is estimated to be 25,236 two way movements over the 17 month construction period. This will include Heavy Good Vehicle (HGV) movements and Light Goods Value Movements (LGV). These numbers are assessed to have a negligible impact on the road network.

It is considered that the Proposed Development will have a negligible effect on accidents and safety, driver delay, fear, intimidation and pedestrian amenity/delay and severance

During operation it is anticipated that HGV movements will be expected to average approximately 36 two-way movements per day (assuming operations between 07:00-19:00 this averages 1.5 HGVs per hour). It is also highlighted that the use of marine transport will take over 20,000 HGV two way movements of the road network. In addition to these HGV movements, 55 full time staff shall be accessing the site, with parking provided for up to 30 vehicles. Even when including all of these staff members the impact of the operational traffic is not considered to have a substantial effect on the local area. LGV movements will be greatly reduced.

While the assessment confirms that the additional construction and operational traffic will have a negligible effect on the road network and associated sensitive receptors a Construction Traffic Management Plan (CTMP) will further minimise any effects during construction and consider the safety of other road users, driver delay, fear, intimidation and community severance during the construction of the Proposed Development. An Access Liaison Group will be created to inform local community councils and residents of construction details. The levels of traffic anticipated during the operational phase of the Development are not significant in terms of the EIA Regulations therefore mitigation measures are not required. Despite this signage will be erected advising of the appropriate access to the Proposed Development with minimal numbers entering Kyleakin or Kyle of Lochalsh during the day.

The number of two-way HGV movements removed from the road due to the construction of the Proposed Development are estimated to be 23,174 per year; an average reduction of 52 two-way movements per day



(assuming operations between 07:00-19:00 this averages a reduction of almost 4.5 HGVs per hour). This is the benefit of the site receiving the bulk of raw materials and the dispatch of finished product by sea rather than by road as is currently used by other fish feed plants in Scotland which supply Marine Harvest.

5.5. Hydrology and Flood Risk

Flood Risk Assessment (FRA)

The flood risk assessment (**Appendix 9.1**) was carried out in accordance with SEPA's Technical flood risk guidance for stakeholders (Ref. SS-NFR-P-002, SEPA, 2015) as required by SEPA. A range of sources was considered: coastal, fluvial, reservoirs, pluvial and groundwater. The work included hydraulic modelling of the Allt Anavig watercourse and a review of extreme sea levels, existing flood risk mapping and ground investigation data.

The risk of fluvial flooding is high due to restricted flow capacity of the Allt Anavig culvert; the proposed reservoir overflow and diversion channel will provide additional capacity. There is a residual risk of culverts blockage, and hydraulic modelling has shown that 10% blockage could lead to external flooding whilst 50% blockage could lead to internal flooding, with impacts on access and egress from the site. The risk of blockage could be reduced either by installing coarse inlet screens to prevent large debris from entering the culvert or debris management within the reservoir and its catchment. Accesses should be raised slightly to provide safe access and egress in the event of blockage and flooding.

There is a moderate risk of reservoir breach or overtopping. This could be reduced through routine inspection and maintenance to ensure that the reservoir remains sound. Due to the short response time for occupants downstream if the dam were to fail, emergency response procedures should be developed, supported by reservoir water level monitoring and alarms triggered by rapid or significant water level change.

Coastal flooding is low risk as the proposed floor and ground levels are above extreme sea level. There is a slight risk of flows backing up upstream of the Allt Anavig culvert if extreme sea levels are combined with high river flows.

Pluvial flooding is low risk, although surface water drainage should be installed to capture runoff and direct it to a watercourse or the lagoon. Groundwater flooding is also low risk; it has been assumed that any groundwater reaching the surface will follow pluvial flow paths. Canals and artificial drainage systems were not seen to pose a risk.

Hydrogeomorphological Assessment

A hydrogeomorphological assessment (**Appendix 9.2**) of Allt Anavig was also undertaken, in line with SEPA, 2012 Supporting Guidance (WAT-SG-21) Environmental Standards for River Morphology, to meet the requirements of planning conditions specified by SEPA.

The assessment included consideration of the potential impacts on the existing non-culverted reaches within the site, as well as the risks and opportunities associated with the proposed work with respect to sediment erosion, transportation and deposition.

A short section (approximately 90m) of semi-natural channel would be depleted of flow under normal conditions, but utilised as an overspill channel for additional flow under flood conditions (for events with a return period between 1 in 50 years and 1 in 200 years). Under non-flood conditions, flow would be diverted through a new alignment, via a small lagoon to a new marine discharge location.

The new channel would consist of an initial length of enclosed/open culvert to the lagoon, with a naturalised channel downstream of the lagoon. The lower reach would pass through a short length of box culvert beneath an access road before extending to the marine environment. Each section would have a low risk of erosion, mitigated through engineered design features within the upstream section, with more naturalised solutions within the lower reach, including the use of coarse substrate, rock revetment, step pool cascade and boulder



baffles. Sediment transport would be facilitated, especially within the naturalised lower section, by the addition of a V-cut low flow channel.

The lower, semi-naturalised reach would include connectivity with the marine environment, providing access to a new extent of inter-tidal habitat for marine species within the adjacent Marine Protected Area.

5.6. Aquatic Ecology

Marine aspects of the Proposed Development are represented in **Sections 5.11 to 5.15**. Subsequently, Aquatic Ecology has now been superseded by these sections.

5.7. Terrestrial Ecology

An Ecological Impact Assessment (EclA) has been carried out to consider the potential impacts from the Proposed Development on terrestrial species, habitats and ecosystems. It is considered that for the purpose of the assessment only features of authority area importance or greater are taken forward for detailed impact assessment. Features of less than authority area importance are not considered to be important ecological features.

The study area is covered by the regional Highland BAP (Highland Environment Forum, 2015) and is further covered by the Local Biodiversity Action Plans (BAP) for Skye and Lochalsh (Skye and Lochalsh Biodiversity Group, 2003). There are also two designated sites within the study area including Kinloch and Kyleakin Hills SAC (JNCC, 2016b) and Kinloch and Kyleakin Hills Site of Special Scientific Interest (SSSI) (SNH, 2016c). Habitats include Ancient Woodland (AWI), Non-AWI woodland, Scrub, Waterbody, Marginal vegetation, bare ground and intertidal rocky and shingle areas. Protected species include otter, bats, pine marten, reptiles, breeding birds and sand martin.

Potentially significant construction impacts on breeding birds and spread of INNS are anticipated to be fully mitigated through the proposed vegetation clearance/management and breeding bird checks, and by implementation of an Invasive Species Plan. Non-significant construction impacts on otter, pine marten, reptiles and AWI will also be further reduced through implementation of measures to avoid: entrapment in excavations; disturbance due to lighting; avoidance of mortality; and dust management procedures. Where identified as necessary in pre-construction surveys, the loss of an otter holt may require appropriate compensation, as defined in consultation with SNH through the derogation licensing process for European protected species. No significant operational impacts are predicted, but best practice mitigation will help retain safe access routes for otter across the site.

There are no significant long-term residual impacts on ecological features predicted, provided that there is successful implementation of proposed mitigation measures which include adherence to environmental plans such as the Construction Environmental Management Plan (CEMP) and Species Protection Plans.

5.8. Socio-Economic

A socio-economic assessment was carried out to determine the potential economic effects that could occur as a result of the construction and operation phases of the Proposed Development. The assessment considered the potential adverse and beneficial effects on the local economy in terms of job creation and investment, as well as effects on land use, tourism and community interests.

The Proposed Development will result in beneficial effects for employment during both construction and operation. During construction jobs created by the Proposed Development would ramp up steadily from the peak in the ninth month of construction with a total estimate of 141 construction jobs created. 55 full time jobs, excluding small scale engineering / electrical work and ad hoc staffing requirements, will be created during operation.

Assessment of community interests considered the effects on recreational links, routes or walks etc., reduction in amenity in terms of landscape, air quality and noise and effects to the community's integration and social cohesion to the Development Area. The community may experience adverse effects in terms of noise, air,



landscape and visual amenity. Marine Harvest will support a long-term stakeholder engagement programme, to provide local residents with a platform for voicing concerns, and a mechanism for resolving grievances. It is therefore assumed all community concerns can be resolved and there will be no residual adverse impact on the community.

The tourism assessment focused on the numbers of tourists visiting the area, the reasons for visiting and the potential effects of the Proposed Development on tourism interests and accommodation. It is considered that the construction-related effects (noise, traffic congestion, etc.) as well as the visual impact of the Proposed Development have the potential to impact tourism. Mitigation measures are proposed to minimise any adverse effects; development of a Brand Management Plan, a Salmon Farming Visitor Centre and a communication strategy to engage with local residents and visitors will be implemented to help with any adverse effects to tourist numbers.

The socio economic effects are mainly beneficial resulting in job creation and investment.

5.9. Cultural Heritage

An assessment of the potential effects of the Proposed Development on the historic environment was undertaken which sought to describe the location, nature and extent of any known international, national, regional and local sites of importance which may be affected by the construction or operation of the Proposed Development. An assessment of the likely effects on the historic environment posed by the Proposed Development has been undertaken.

Studies carried out for the ES did not identify any designated or undesignated marine cultural heritage assets within the study area. The closest marine cultural heritage assets are two undesignated wreck sites approximately 150m north north-east of the study area; the closest Historic Marine Protected Area is approximately 70km south-west of the study area. A review of the detailed sonar survey conducted for this application did not identify any anomalies of potential cultural heritage interest.

The seabed within the study area is characterised by exposed bedrock overlain in places by cobbles. This reflects its exposure to high energy tidal flows in and out of the Kyles, and to strong wave action from the north. Taking this into account, the marine archaeological potential of the study area is considered to be negligible, and the potential for a significant effect is also considered to be negligible. No mitigation is therefore proposed.

A total of six cultural heritage assets were identified within the study area comprising one undesignated archaeological site (Boundary Bank, Kyle House) and five undesignated Historic Landscape Types. A further assessment was carried out to assess the potential for impacts to occur on the setting of designated and undesignated sites outside the study area during construction or operation of the Proposed Development. These sites included four designated heritage assets and one undesignated Historic Landscape Type. These comprise an Inventory Garden or a Designated Landscape of National Importance, 3 Category B Listed Buildings of Regional Importance and 1 undesignated Historic Landscape Type of Less than local importance.

No construction effects of more than very low are predicted to occur as a result of the Proposed Development alone. The presence of a construction site and plant, materials stockpiles and the movement and lighting associated with construction activity would be visible in views from Category B Listed Kyleakin Lighthouse asset towards the Isle of Skye. It is considered that this would not affect the relationship between the lighthouse and the Kyle Akin which defines its setting and therefore magnitude is assessed to be very low. No other construction effects on heritage assets have been identified.

Operational effects are considered to be equivalent to the construction effects illustrated above. It is therefore extremely unlikely that any significant cumulative effect could occur as a result of the Proposed Development in combination with other existing or proposed developments.

It is considered that no significant effects have been predicted on cultural heritage assets during construction or operation of the Proposed Development. Consequently no mitigation measures are recommended.



5.10. Landscape and Visual

A Landscape and Visual Impact Assessment (LVIA) was carried out to assess the effects of the Proposed Development on landscape character and visual amenity. Although closely related both were considered separately for reasons of clarity and robustness.

A 5km radius study area from the centre-point of the Proposed Development was adopted for both the landscape assessment and visual amenity assessment and a Zone of Theoretical Visibility (ZTV) was prepared, indicating those parts of the 5km study area from where there may be views of the Proposed Development.

The assessment identified the location, nature and extent of any known international, national, regional and local sites of importance with the potential to be affected directly or indirectly by the construction or operation of the Proposed Development. Two Landscape Designations and seven Landscape Character Types were determined to have potential to receive potentially significant indirect effects. The assessment identified the baseline condition of these landscape areas; Landscape Value and Landscape Sensitivity and the assessed the Magnitude of Change and Landscape Effects associated with construction activities and operation of the Proposed Development. The assessment concluded that significant landscape effects were likely in three landscape areas; the Kyle-Plockton SLA, Offshore Islands LCT and Smooth Stepped Moorland LCT.

The visual assessment has considered receptors at viewpoints, receptors in buildings, receptors in outdoor spaces and receptors on routes within the study area. The assessment revealed that during construction and operation, there would be significant visual effects for receptors relatively close to the development at 11 locations within the areas of Badical, southern Kyle of Lochalsh, Plock of Kyle and the Skye Bridge / Eilean Ban. The assessment recognised that a variety of people visit, live and work in the study area and that there would be a variety of visual experiences for different groups of people and this has been taken into account in the visual assessment, particularly in the degree of visual sensitivity to change. Overall, the Proposed Development is more screened in views from the east, south and west and hence significant visual effects upon receptors are concentrated to locations within approximately 3km to the north and north-east of the Proposed Development where there are more open views along the coast and across Loch Alsh and the Inner Sound in the direction of the site.

Mitigation measures for landscape character and visual amenity mainly focused on mitigation by design. The layout has been designed to ensure that the Proposed Development sits back into the quarry as much as possible; that the silos (which cannot be painted) are screened in views from the north and east. The carefully selected colours and materials combined with landscape planting and mounding, have been chosen for the Proposed Development with the intention of integrating the buildings and structures within the landscape and reducing the potential effects it may have on visual amenity.

5.11. Navigation

The potential effects of the Proposed Development on navigation has been assessed for both construction and operation phases of the project through a Navigational Risk Assessment (NRA) carried out by Associated British Ports Marine Environmental Research (ABPmer). During the construction phase, minor adverse residual impacts were identified as: allision of vessels with the dredge pipeline and buoys, allision of dredge and construction plant with marine works structures, the dredger vessel grounding while operating, and vessel damage from adverse weather.

During the operational phase, minor adverse residual impacts identified as: allision of vessels with the pier structure, navigational buoys and Skye Bridge, and the grounding of vessels on approach.

Consequently all impacts were identified as minor adverse following implementation of mitigation measures.

5.12. Water Quality

Potential impacts on marine water quality that could arise during the construction and operation phase of the project were assessed, including potential impacts via sources generated on land that have a pathway into the marine environment. During both the construction and operation phase, potential impacts on marine water



quality were identified from increases in suspended sediment loads and resuspension of contaminated sediments (primarily from capital and maintenance dredging operations), changes to water chemistry (caused by pollution from spillages, discharge of sewage and operational process discharge). Consideration was also given to the hydromorphological status of the water body and whether there would be any effect on the Water Framework Directive (WFD) status.

Following implementation of mitigation measures all potential impacts were assessed as negligible, with the exception of increased suspended sediment load which was assessed as minor adverse. Given the results of the assessments and acknowledging the overall status of the water bodies it is not believed that there would be any effect on the WFD status.

5.13. Coastal Processes and Geomorphology

Flow and wave and were used to assess the potential changes to coastal processes that could occur from the proposed works, and the indirect effects these changes could have on geomorphology. Following on from these studies sediment plume modelling was carried out to consider the effects from dredging. Further consideration was also given to the potential operational effects of propeller wash on the seabed.

In general the changes to coastal processes as a result of the proposed pier are predicted to be minimal. While clear changes have been predicted, these were generally in the nearshore area and proximal to the Proposed Development.

Given the results of the modelling and the assessments, and in line with the opinion of SEPA (Scoping Opinion, 2016), it is concluded that the Proposed Development would not have a significant impact upon the hydromorphological status of the coastal waterbodies of the 'Inner Sound' and 'Loch Alsh'. Therefore the WFD classification given to 'hydromorphology' and 'morphology' quality element would remain the same (High).

While there is an overlap of the Proposed Development and some of the changes in coastal processes predicted by the modelling, it is not considered that these changes would have a detectable effect on the qualifying features of the Lochs Duich, Alsh and Long MPAs or SACs.

5.14. Marine Ecology

Assessment of the potential effects of the Proposed Development on marine ecological receptors such as European and nationally designated conservation features, marine habitats and their associated communities, fish and marine mammals were carried out. Following implementation of appropriate embedded and additional mitigation measures, only a number of residual significant impacts remain, all of which are minor adverse.

Consideration was given to whether the conservation objectives of the Lochs Duich, Long and Alsh SAC and MPA, and the Inner Hebrides and Minches cSAC would be affected by the Proposed Development, specifically if the qualifying features would be impacted. Following the assessments and considering the conclusions from other chapters it was determined that there would be no adverse effects to these sites or their qualifying features.

5.15. Cumulative Impacts

An assessment of the predicted impacts that would arise as a result of either Type 1 or Type 2 impacts has been carried out. Type 1 impacts are multiple impacts from the Proposed Development which could potentially affect the same receptor(s). Type 2 impacts are those generated from this project and other project(s) which together could potentially affect the same receptor(s).

Following the assessment no significant Type 1 or Type 2 impacts were identified from the Proposed Development.



6 Summary

The Applicant seeks permission to construct and operate a fish feed plant in the existing Allt Anavig quarry located in Kyleakin, Isle of Skye. The Proposed Development includes terrestrial and marine development, both planning permission and marine licences are required from the appropriate authorities, which in this case are The Highland Council (THC), as the Local Planning Authority, and Marine Scotland Licencing Operations Team (MS-LOT).

The Applicant achieved planning permission from THC for the terrestrial elements of the Proposal Development under reference 16/03869/FUL on 2nd March 2017. The Applicant now seeks marine licences for the marine elements of the Proposed Development.

Detailed assessments were completed to assess the effects of the Proposed Development on potential sensitive receptors such as marine ecology, local terrestrial, hydrogeology, geology and hydrology, the visual landscape, local residents and a range of their interests including cultural heritage, noise, air quality and odour and socio economic issues.

From a terrestrial perspective, including groundwater flow and quality, contaminated land, geomorphology, hydrology and flood risk, and water quality (freshwater), all potential residual impacts during the construction and operation phase were assessed as slight to moderate adverse or of low to moderate significance. Landscape and visual effects were assessed as significant (localised to the north-east) in the coastal areas around Badicual, Kyle of Lochalsh, the Skye Bridge and Eilean Ban.

From a marine environment perspective, including navigation, water quality, and marine ecology, all potential residual impacts resulting from development activities, during the construction and operation phase, were assessed as negligible or minor adverse i.e. no residual impacts were assessed as moderate or major adverse. Potential changes to coastal processes were minimal and highly localised as were any predicted changes to the geomorphology. No significant cumulative impacts were identified from any phase of the works. Socio-economic effects were assessed as beneficial during both the construction and operation phase as a result of enhanced local employment opportunities.



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