



## National Park Authority Board

### Special Board Meeting

### Beinn Reithe, Loch Long

### Major Planning Application

**Meeting:** 31 October 2022

**Agenda item:** 4

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**SUBMITTED BY:** Director of Place

<b>APPLICATION NUMBER:</b>	2021/0357/DET
<b>APPLICANT:</b>	Loch Long Salmon
<b>LOCATION:</b>	Beinn Reithe, Loch Long
<b>PROPOSAL:</b>	Installation of a marine fish farm and associated development including shore base, slipway and pontoon and road upgrades.
<b>NATIONAL PARK WARD:</b>	Ward 1 - Cowal and North Loch Lomond
<b>COMMUNITY COUNCIL AREA</b>	Arrochar, Tarbet and Ardlui and Lochgoil
<b>CASE OFFICER:</b>	Name: Alison Williamson Tel: 01389 722 610 E-mail: <a href="mailto:alison.williamson@lochlomond-trossachs.org">alison.williamson@lochlomond-trossachs.org</a>

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### 1. Summary and reason for presentation

- 1.1. This is a planning application for the installation of a marine fish farm and associated development including shore base, slipway and pontoon and road upgrades at land at Beinn Reithe, Loch Long.
- 1.2. The planning application is being reported to the National Park Authority Board in accordance with Paragraphs 44 (c) of the Board and 7(d) of the Planning and Access Committee Standing Orders. The Standing Orders specify that the decision on a planning application must be taken by the Board when the Chair of the Planning and Access Committee and the Director of Place are of the opinion that it would be appropriate for the Board to take the decision for reasons including the application raising new or significant issues or public interest.
- 1.3. This planning application would be the first marine aquaculture development in the National Park and proposes technology which is the first of its kind in Scotland. In addition, there has been a significant level of public interest in the proposal. It is an application for major development and requires an Environmental Impact Assessment and a Habitat Regulations Appraisal.
- 1.4. Members agreed at the National Park Authority Board meeting on 26 September 2022 that a Site Visit and Hearing would be held before determining the application at a Special Board Meeting.

### 2. Recommendation

- 2.1. That Members:

**REFUSE** the application (for the reasons set out in **Appendix 1**).

### 3. Background

#### Site Description

3.1. The application site has a total site area of 65 hectares which includes a 1.2 hectare area of land on the western shore of Loch Long where the land-based elements of the proposal would be located including the shore base and access road. The rest of the application site includes the marine structures and equipment which would be within Loch Long. The marine enclosures would be between 200 metres (at the northern end) and 300 metres (at the southern end) from the western shore. The settlement of Ardgartan is 3.4km to the north east and the village of Arrochar is approximately 5 km to the north east at the head of Loch Long.

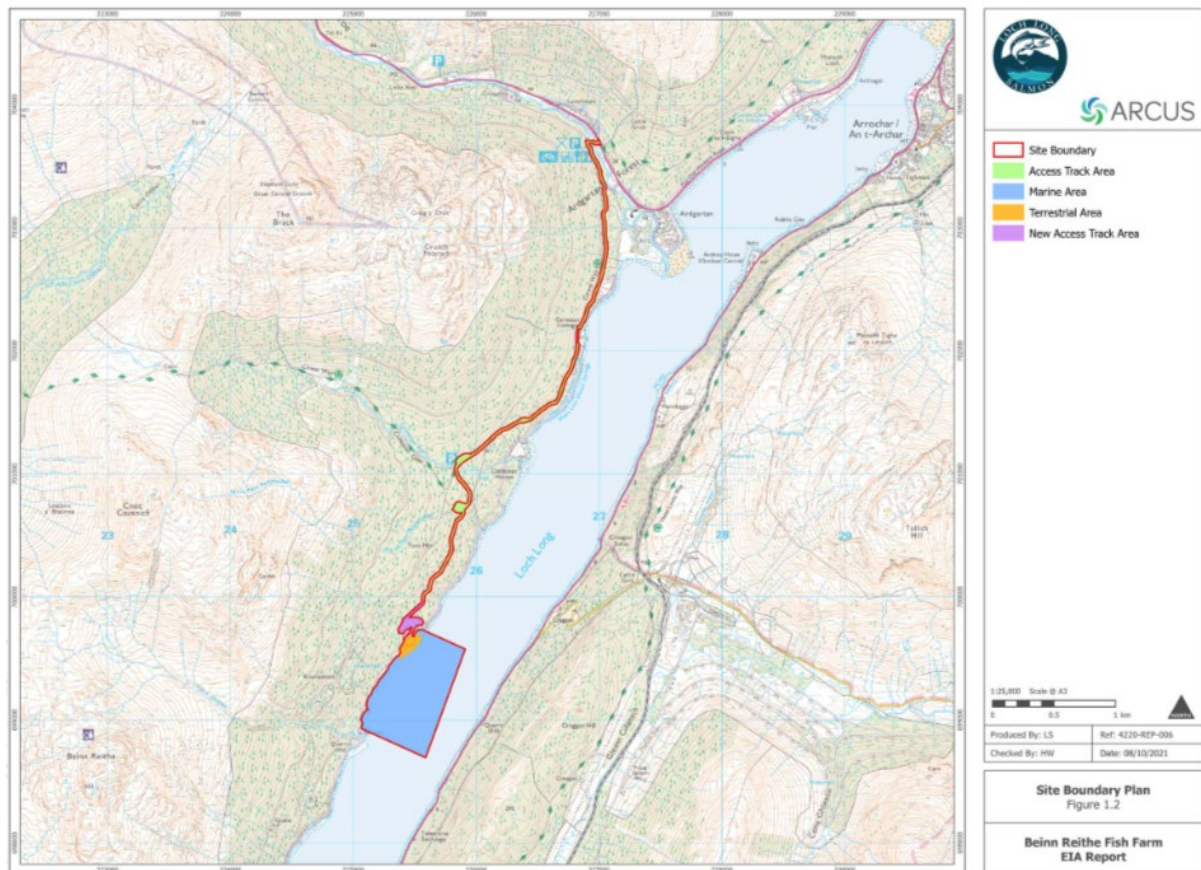


Figure 1: Proposed Development Location – Marine, Terrestrial and Road Elements

3.2. This area of coastline forms part of the Firth of Clyde. Loch Long is particularly narrow (approximately 750m wide) in the location of the application site with steep, mainly wooded slopes. The A814 (Arrochar- Helensburgh road) follows the eastern shore of Loch Long. To the north of the application site there are a number of isolated dwellinghouses approximately 1.5km away at Coileissan. Access to the

application site is along the existing road and forestry track which passes Ardgartan hotel and Forest Holidays visitor accommodation at Ardgartan. The forestry track then passes through the Ardgartan Forest and leads (approximately 4.8km) to the application site.

3.3. The Marine Planning Zone for The National Park includes the head of Loch Long and the loch is then split south of Creagan Sithe (eastern boundary of the National Park) with the western side of the loch in the National Park Marine Planning Zone and the eastern side of the loch in Argyll and Bute Marine Planning Zone. The mooring extent of the proposed fish farm would extend into the eastern side of the loch which is within the Argyll and Bute Marine Planning Zone (see figure 2).

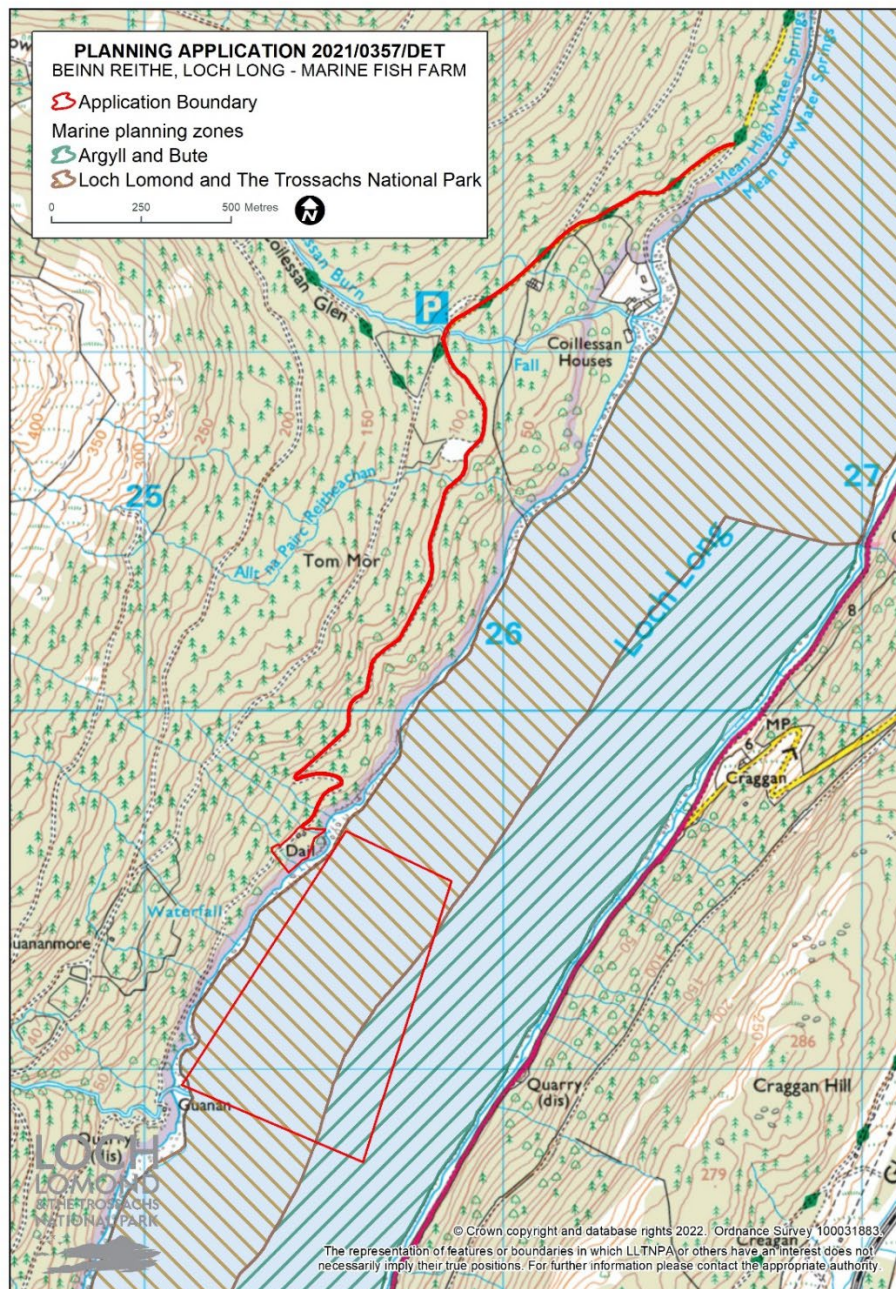


Figure 2: Marine Planning Zones

3.4. The area of land where the shorebase would be located is currently an area of woodland. 1.2 hectares of woodland removal would be required to facilitate the development. The site is recorded on the Ancient Woodland Inventory as Ancient Semi-Natural Woodland and on the Native Woodland Survey of Scotland as a Plantation on Ancient Woodland Site (PAWS).

### Description of Proposal

3.5. This is a planning application for the installation of a marine fish farm (farming Atlantic salmon) and associated development including shore base, slipway and pontoon and road upgrades. The proposed marine fish farm would use a “semi-closed” farming system with four circular marine enclosures and one square harvesting enclosure in a linear arrangement.

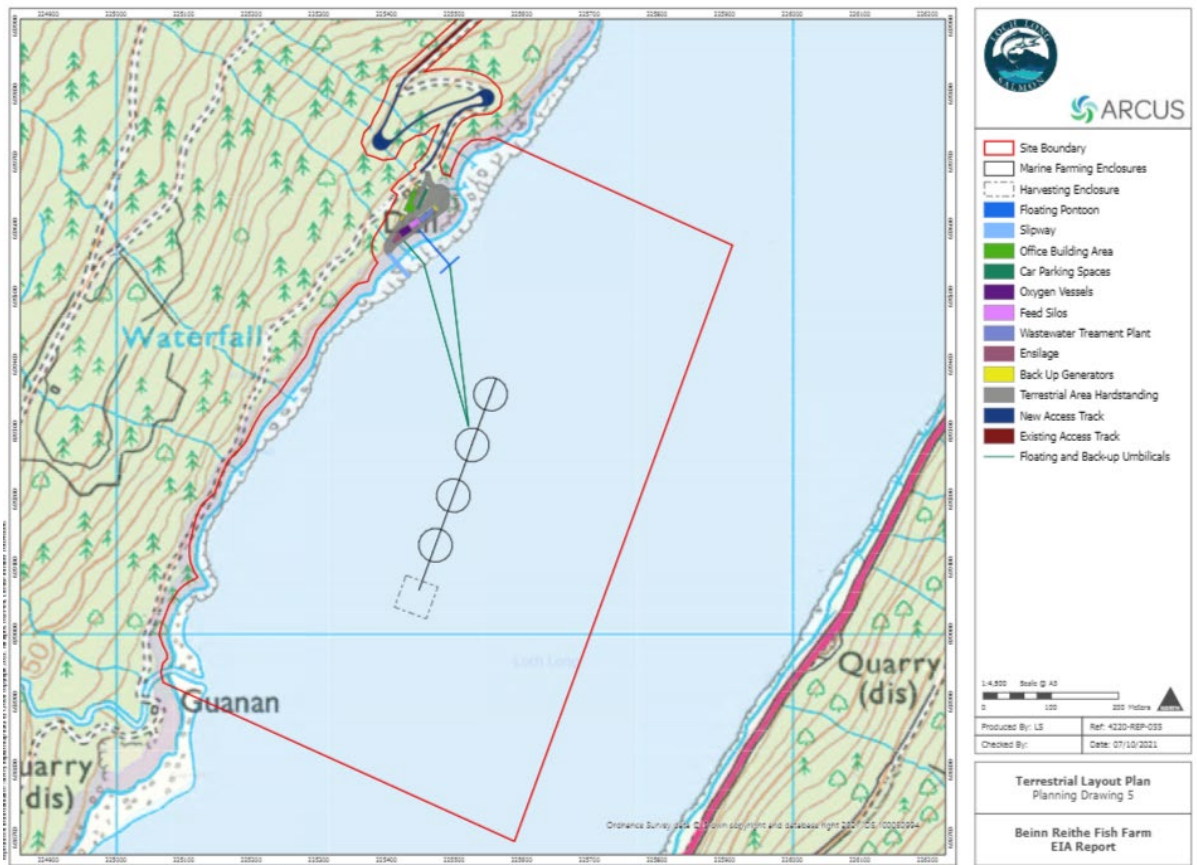


Figure 3: Proposed Layout

3.6. The “semi-closed” farming system is a new technology for Scotland, which differs from conventional fish farms using cages. The proposed “semi-closed” marine farming enclosures would be formed from an opaque, flexible, impermeable material suspended from a circular float collar. Inside the marine fabric enclosure is a mesh net. As the farming enclosure is impermeable, water cannot permeate the enclosure from the loch and the fish are therefore farmed in a controlled environment.

The technology aims to restrict and control interactions between farmed fish and the external environment.



Figure 4: Example of the marine enclosures from the applicant's website.

- 3.7. The marine enclosures would be filled with loch water, drawn into the enclosures via pipes from below. Water would circulate and leave the enclosures via a number of ports. Each of the marine enclosures would be supplied with oxygen, feed and power via pipes from the shore base. Under the water the enclosure would taper to a point (sump) 40 metres below and waste (food and faeces) would be removed from the sump via pipe. Monitoring data would be transmitted via cabling in pipes from the enclosures back to the shore base.
- 3.8. Pipes and cables supplying the marine enclosures with feed, power and oxygen and removing waste and transferring data would be bundled together into an "umbilical" and would extend from the shore base to a central point in the marine enclosures. The main umbilical would be formed of bundled pipes (width up to 2m) which would be cradled by a floating pontoon extending 40m from the shore and would then float on the surface of the water to the enclosures. A second back-up umbilical (submerged) containing additional power and oxygen lines would provide power and oxygen in the event of a failure of the primary umbilical.
- 3.9. The marine enclosures would have a maximum diameter of 50 metres and would be 40 metres in depth with a float collar 2 metres wide which would protrude 2 metres above the water line. This structure would house control cabinets, pipes, splashboard, access platforms and would include a walkway with handrail. Above the surface of the water on the float collar structure there would be a container (6.1 metres length x 2.6 metres high and 3.7m wide) housing electrical and other support systems and above surface structures relating to submerged pipes. Bird nets would extend up to 6 metres in height above the float collar, supported by poles.

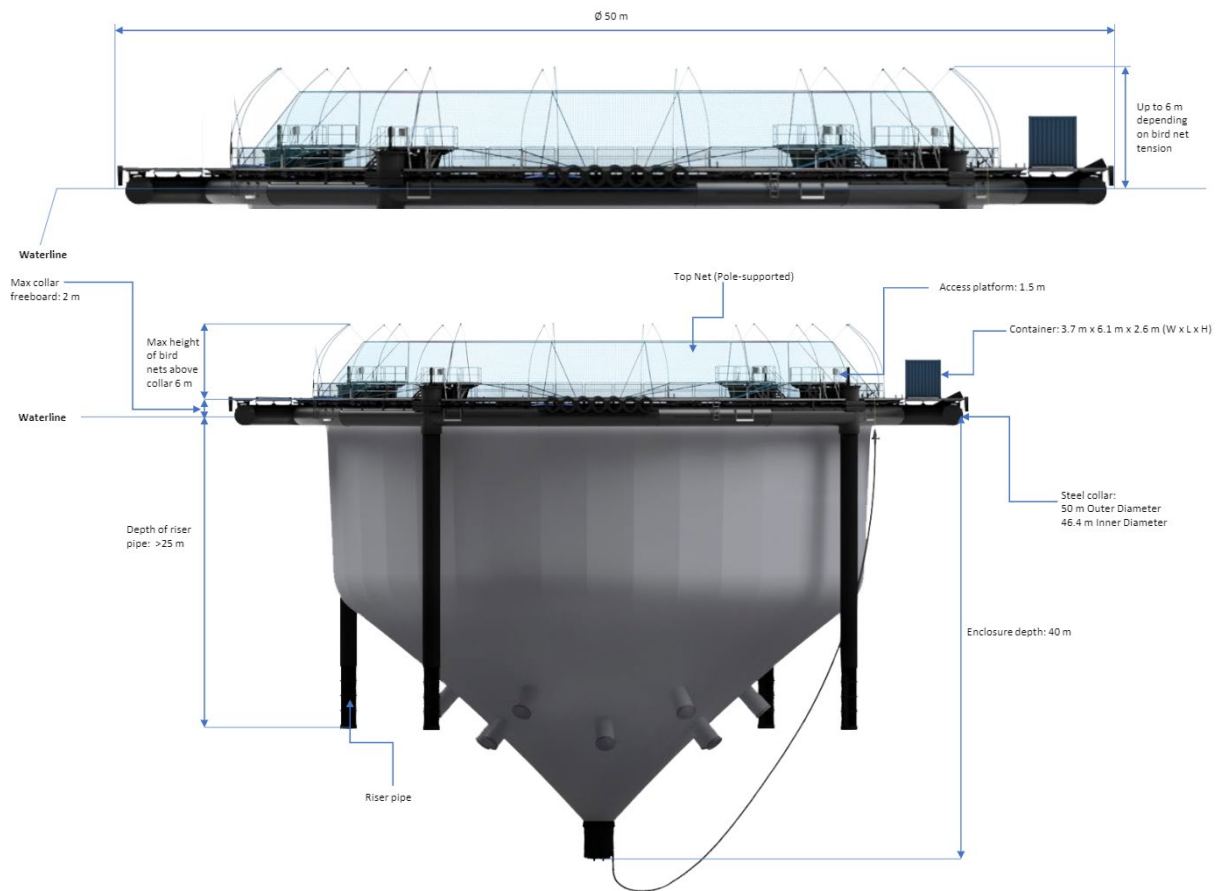


Figure 5: Proposed Marine Enclosure Elevations

- 3.10. The proposed harvesting facility would be a square semi-closed enclosure located 80 metres to the south of the four circular enclosures. It would have a maximum side length of 50 metres with a float collar of the same design as the farming enclosures. The harvesting enclosure would be divided into four sub-enclosures to allow for a staged harvest. Fish would be transferred into the harvesting enclosure by well boat using a pump.
- 3.11. The marine enclosures would be on an 80m x 80m mooring grid. The mooring system would have an outward extent measuring 250 metres outwards from the mooring grid (mooring lines extending up to 250 metres from the grid to anchors). Three additional moorings would be installed for workboats between the marine enclosures and the shore base, marked by surface marker buoys (see figure 6).

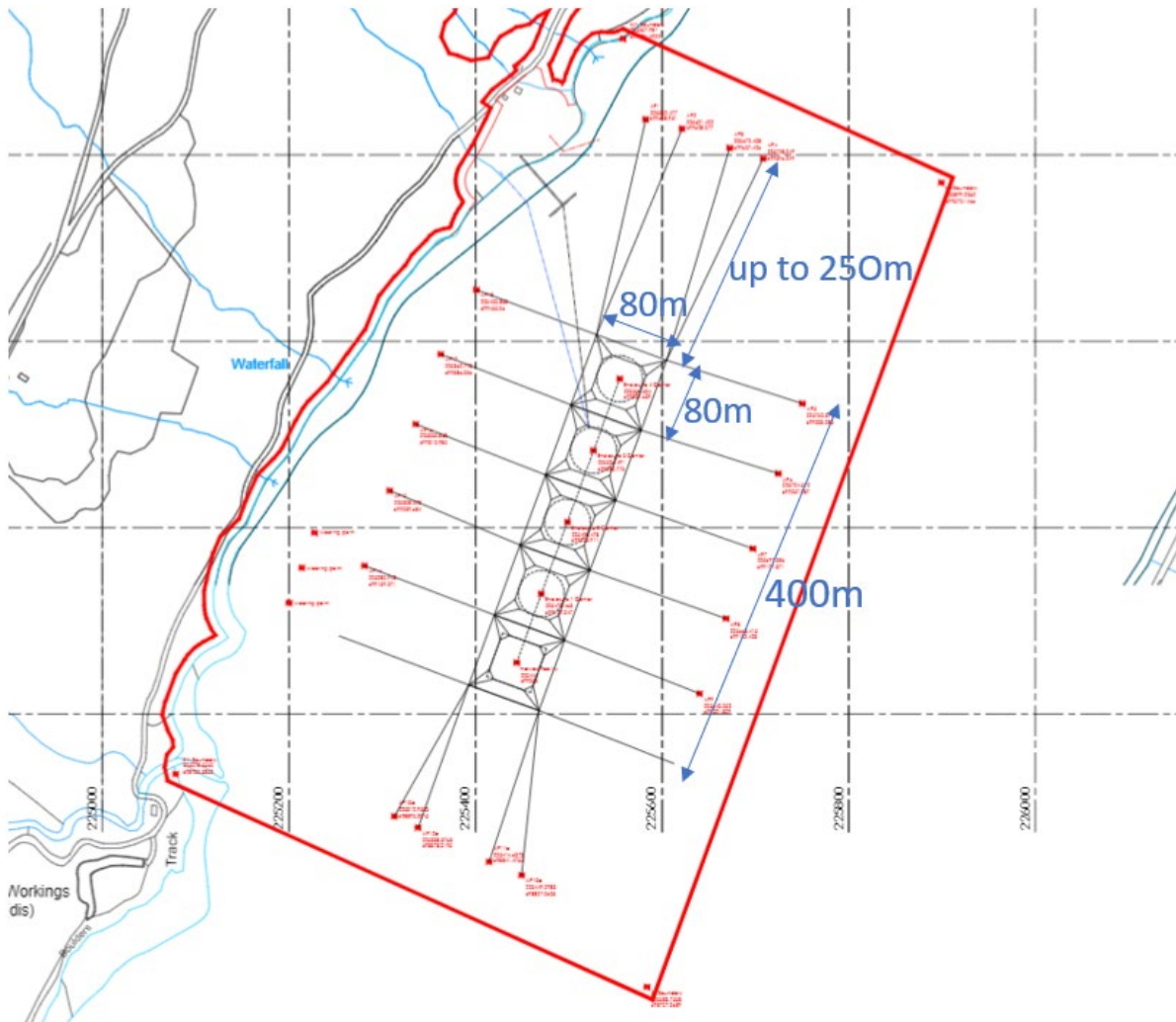


Figure 6: Proposed Mooring Layout

- 3.12. Four of the mooring points for the proposed fish farm would be within the eastern side of Loch Long which at this point falls under the Marine Planning Zone of Argyll and Bute Council (see Figure 2). A separate planning application has been submitted to Argyll and Bute Council for the mooring points only (planning application reference 21/02455/MFF). This planning application has not yet been determined.
- 3.13. The planning application is for a proposed marine fish farm with a maximum biomass of 4,000 tonnes. This is the total permitted quantity of fish held on a site (at maturity). Salmon would be delivered to and from the site by well boat. SEPA have granted a CAR authorisation for a maximum biomass of 3,452 tonnes.
- 3.14. Two different potential farming methods are proposed, an “entry to harvest” system or a “post-smolt” system. The entry to harvest system would employ the proposed harvesting facility (square shaped marine enclosure). The fish would be delivered to the farm at 80-100 grams and reared until at full harvest size (4-6.5kg average weight) within the four farming enclosures and moved to the harvesting enclosure after approximately eleven to twelve months.



In this farming method the fish would be introduced to the four marine enclosures sequentially, with one enclosure being stocked each month over a period of four months.

3.15. In the “post-smolt” system, the fish would be grown in the four farming enclosures (from smolt size 50-100g) for up to ten months (to 0.7 to 1.5 kg) and would then be taken directly to other conventional farming sites by sea to complete their growth. In the post-smolt system the stocking of the site would be complete in a number of weeks. In both farming systems there would be a routine “fallow” period following harvesting when the enclosures would be empty and production would cease. During this period the farm would undergo a maintenance and cleaning programme.

3.16. The terrestrial (land based) elements of the proposal include a shore base building and storage areas; oxygen storage vessels; feed silos; water treatment plant; mortality handling station/ensilage; a slipway; a pontoon; grid connection and generators; and a car park and HGV turning area (see figure 7).

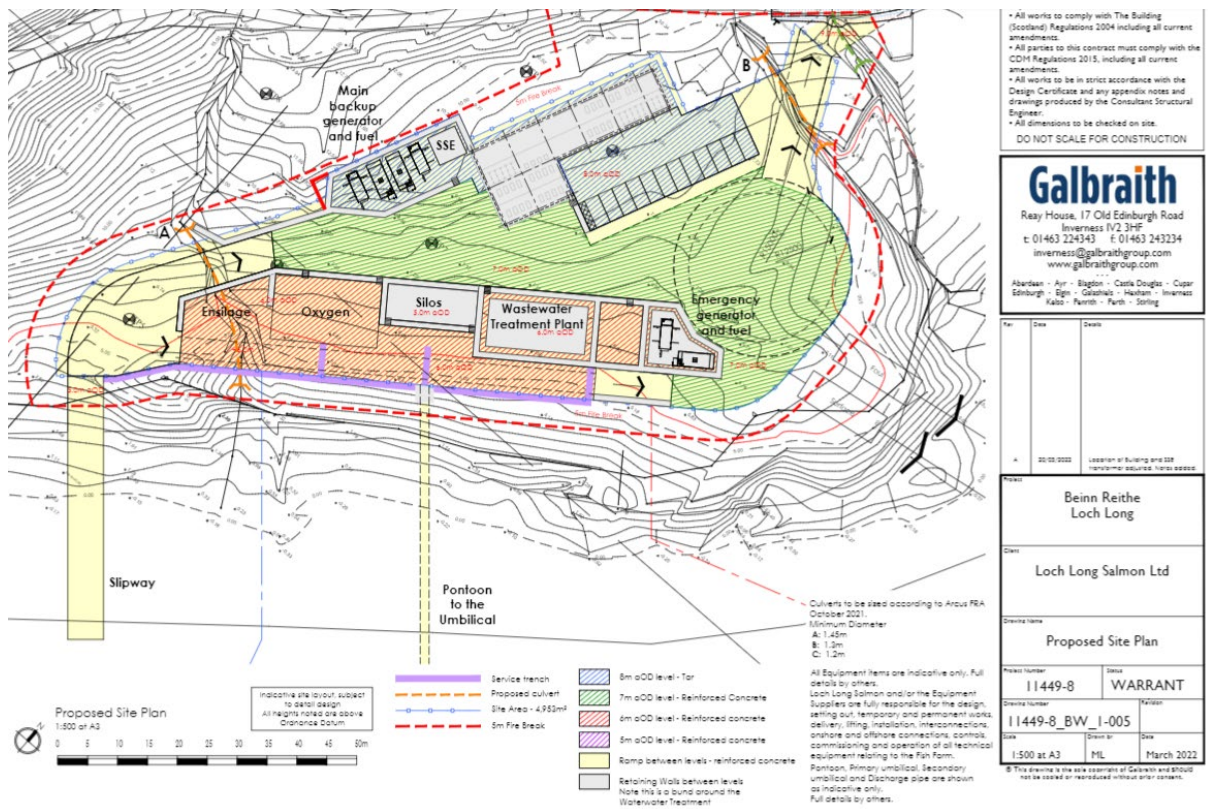


Figure 7: Proposed Terrestrial Layout

3.17. Details of the proposed terrestrial elements are as follows:

**Shore base Building**

- L-shaped single storey building containing offices, canteen, welfare facilities, overnight room, drying room, plant room, laboratory as well as a workshop and store;

- 33 metres in length and 6.6 metres wide extending to 12.2 metres wide in part to form the L shape; 5.6 metres in height;
- Building finished in an insulated wall panel system and would include solar panels on the roof.

#### Oxygen Tanks

- Four oxygen tanks (11.5 metres high x 2.8 metres wide)
- Associated vapourisers
- Total area 18 metres x 11 metres

#### Feed Silos

- Four feed silos (max height 8 metres)
- Total area 15 metres x 16 metres

#### Mortality Handling Station/Ensilage

- Series of four tanks (2 cylindrical and 2 cubed)
- Max height 3.5 metres
- Grinder unit
- Bin tipper
- Total area 8.5 metres x 5.9 metres

#### Wastewater Treatment Plant

- wastewater storage tank (10 metres high on 2 metre high concrete pad)
- treatment plant (16 metres length x 8.8 metres wide)
- overall area 12 metres wide x 28 metres in length

#### Slipway

- 44 metres in length x 6 metres wide
- Concrete finish

#### Pontoon

- T shaped pontoon
- Extending 40 metres into the loch
- 2.5 metres wide
- 1 metre in height from the water's surface
- Lit with safety lighting along its length

#### Car park and HGV Turning Area

- Car park providing 12 spaces
- HGV turning area

#### Power Supply

- Generators and back-up generators
- Electrical supply infrastructure

3.18. Access to the application site would be taken via the existing forestry road from the A83 at Ardgartan Visitor Centre. Upgrades to this access road would be required including widening in sections and the installation of additional passing places. A new section of access road is proposed to connect from the existing forestry access road to the area of land where the shore base would be located. Material from an existing quarry (Ardgartan middle quarry) within the forest, located 5 km from the shore base, would be used for road upgrade works.

- 3.19. 1.2 hectares of woodland removal would be required to clear the area of land required to construct the proposed shore base and access road. Although most of this woodland has recently been felled for forestry reasons, it would normally remain as woodland through re-stocking or natural regeneration. As a PAWS site, the restock would typically be to native woodland.
- 3.20. The proposed development includes both underwater lighting (for fish health and growth) and above surface lighting for navigational purposes. In addition, there would be lighting along the length of the floating pontoon and at the shore base there would be security lighting at the main building and a floodlit yard.

### **Planning History**

- 3.21. An EIA Scoping Request was submitted in November 2020 (planning reference PSC/2020/0002).
- 3.22. A Proposal of Application Notice (PAN) was submitted in June 2021 (planning reference 2021/0208/PAC).

## **4. Environmental Impact Assessment and Habitats Regulations Appraisal**

### **Environmental Impact Assessment (EIA)**

- 4.1. The National Park is identified as a 'Sensitive Area' within the Environmental Impact Assessment (Scotland) Regulations 2017. The National Park Authority has a statutory duty to consider whether proposals for development should be subject to the EIA process.
- 4.2. The proposal has been submitted with an EIA Report. No formal screening opinion was requested by the applicant, however a scoping opinion was requested and subsequently provided by the National Park Authority in March 2021.
- 4.3. The EIA Report that accompanies the application includes the following chapters:

- Chapter 1 Introduction
- Chapter 2 EIA Methodology
- Chapter 3 Site Selection and Design
- Chapter 4 Project Description
- Chapter 5 Planning Policy
- Chapter 6 Seascape, Landscape and Visual Assessment
- Chapter 7 Archaeology and Cultural Heritage
- Chapter 8 Terrestrial and Coastal Ecology
- Chapter 9 Marine Mammals
- Chapter 10 Benthic Ecology
- Chapter 11 Interactions with Wild Salmonids

Chapter 12 Ornithology  
Chapter 13 Hydrology and Soils  
Chapter 14 Marine Water Quality  
Chapter 15 Traffic and Transportation  
Chapter 16 Noise  
Chapter 17 Land Use and Maritime Activities  
Chapter 18 Socio-Economics, Recreation and Tourism  
Chapter 19 Miscellaneous Issues  
Chapter 20 Summary of Mitigation

EIA Addendum: SLVIA Addendum (28 June 2022)

The full EIA Report can be viewed online in the planning application file, using the application reference number at the following link: <https://eplanning.lochlomond-trossachs.org/OnlinePlanning/?agree=0>

### **Habitats Regulations Assessment (HRA)**

- 4.4. The Habitats Regulations require that where a “competent authority” concludes that a development proposal is likely to have a significant effect on a European site (SPA or SAC) it must undertake an appropriate assessment of its implications for the European site in view of the site’s conservation objectives.
- 4.5. In this instance the proposal could affect the Endrick Water Special Area of Conservation (SAC) designated for Atlantic salmon, Brook lamprey and River lamprey qualifying interests. The proposed development could affect the Atlantic salmon qualifying interest of the Endrick water SAC due to a potential interaction between sea lice from the fish farm and wild Atlantic salmon smolts (juvenile salmon) migrating through the Firth of Clyde and as a result of the potential for genetic introgression (transfer of genetic material between species) should farmed Atlantic salmon escape into the wild.
- 4.6. The location of the proposed development is also within the foraging range of Gannets from the Ailsa Craig Special Protection Area (SPA). The proposal could therefore affect the Ailsa Craig SPA classified for its populations of European importance of Northern Gannet and Black backed gull and its nationally important populations of seabirds. Gannets could be affected by the proposed use of top nets which creates a risk of entanglement.
- 4.7. A Habitats Regulations Appraisal (HRA) to inform an Appropriate Assessment was undertaken by the Natural Heritage Advisor, in respect of each of these identified likely significant effects (on the Endrick Water SAC and the Ailsa Craig SPA). The conclusion of the HRA undertaken in relation to Ailsa Craig SPA is that subject to appropriate mitigation measures secured by a planning condition there would not be an adverse effect on the integrity of the Ailsa Craig SPA if planning permission was granted.

4.8. **The conclusion of the HRA undertaken in relation to the Endrick Water SAC is that there would be an adverse effect on the integrity of the Endrick Water SAC due to the risk of farmed fish escaping and interactions with wild salmonids.**

4.9. The full HRA's can be found in **Appendix 2**.

## 5. Consultations and representations

### Responses to Consultations

5.1. Statutory consultees for marine aquaculture planning applications are SEPA, NatureScot, Marine Scotland Science and District Salmon Fishery Boards. Statutory consultees for EIA planning applications also include Scottish Water, Historic Environment Scotland, any adjoining planning authority and the Health and Safety Executive. Other consultees are bodies which are either required to be consulted under planning regulations or have been consulted as they are likely to have an interest in the proposed development.

#### 5.2. NatureScot

- 5.2.1 NatureScot advised that the proposal could affect the Endrick Water SAC and Ailsa Craig SPA and that the Park Authority is required to consider the effect of the proposal on the SAC and SPA before it can be consented by carrying out a HRA (as detailed above).
- 5.2.2 NatureScot advised that the proposal could be progressed with mitigation, but they object to the proposal unless it is made subject to conditions on an Environmental Management Plan (EMP) being agreed prior to the site being stocked and the applicant should adhere to the relevant technical standards for aquaculture equipment to reduce the risk of equipment failure and any subsequent escapes.
- 5.2.3 Nature Scot recommended conditions relating to the use of pole-mounted top nets. With regard to Priority Marine Features (PMF's) NatureScot note that a number of PMF's have been identified in the visual and benthic surveys but NatureScot are satisfied that any effects will not give rise to any significant impacts on the national status of these PMF's.
- 5.2.4 Nature Scot are satisfied that there would be no adverse impacts to marine mammals (seals and cetaceans).
- 5.2.5 NatureScot advised that the proposed fish farm would utilise a novel semi-closed containment system which is currently untested in Scotland.
- 5.2.6 NatureScot anticipate that the technology proposed is likely to ensure low levels of sea lice, however it may not prevent them entirely. The proposal is approximately 20km north of the likely migration route of post-smolts (young salmon when they first migrate from fresh water to the sea) emigrating from the Endrick SAC into the wider Firth of Clyde channel and it is possible that sea lice originating from the proposed farm could be dispersed south into the

wider Firth of Clyde. There is therefore potential connectivity with the Atlantic salmon feature of the Endrick Water SAC.

- 5.2.7 NatureScot advise that they consider this risk to be low but without clear evidence on use of the proposed technology from a Scottish context they consider it precautionary to conclude that there is a Likely Significant Effect on the Atlantic salmon feature of the Endrick Water SAC.
- 5.2.8 NatureScot recommend that an appropriate monitoring and review process should be in place to enable the National Park to review sea lice monitoring data and ensure mechanisms are in place for management should monitoring indicate that sea lice levels are not being maintained at very low levels.
- 5.2.9 NatureScot advise that a monitoring framework could be included in the site Environmental Monitoring Plan and this approach would provide an early warning approach to identify any elevated risk to the wild Atlantic salmon and would ensure that there is an enforceable framework in place to mitigate the risk before any adverse effect on the site integrity can occur.

### 5.3. Marine Scotland Science (MSS)

- 5.3.1. Marine Scotland Science is the scientific division of Marine Scotland which provides expert scientific, economic and technical advice and services on issues relating to marine and freshwater fisheries and aquaculture. They are a statutory consultee for aquaculture planning applications.
- 5.3.2. With regard to Benthic impacts MSS advised that the proposal relies on the capture of a proportion of the solid waste produced at the site to achieve the desired biomass of farmed fish whilst meeting regulatory standards. MSS deferred to SEPA as the lead body with regard to benthic impacts to provide further advice on the suitability of the modelling approach and the maximum biomass that can be achieved at the site.
- 5.3.3. Water column impacts – MSS advise that the proposal will not result in a change to the current category 3 status (Locational Guidelines loch characterisation).
- 5.3.4. The proposed site is outwith current disease management area zone boundaries and MSS advise that the proposed site would create a new disease management area. Whilst it would be the only site within the new disease management area MSS advise that the site should adhere to the principles of a management area agreement in line with best fish health practice, e.g. holding a single year class of stock and having a suitable fallow period.
- 5.3.5. In terms of stocking MSS advised that they had concerns with regard to stocking density and the welfare of the farmed fish. The applicant provided further information and MSS advised that the applicant should develop a program to monitor operational welfare indicators. The applicant has advised that the final EMP will include a fish welfare assessment process and should assessments identify welfare concerns, stocking rates will be reviewed. A plan detailing fish husbandry and biosecurity measures would need to be

submitted to MSS as part of the required application for authorisation for the Aquaculture Production Business.

- 5.3.6. Sea Lice- weekly counts of sea lice will be undertaken (10 fish from each enclosure) and reported to Marine Scotland. MSS suggest that strict control of sea lice should be practiced throughout the year. MSS advise that the draft EMP submitted should include a regular review process to ensure it remains fit for purpose.
- 5.3.7. MSS advised that an assessment of the suitability of the equipment to ensure the containment of the farmed fish could not be completed as the information on the design and specification provided (moorings analysis) differs from the equipment specified in the planning application.
- 5.3.8. On submission of a letter from the applicant in June 2022, advising that they proposed a phased approach to farming operations (use of 3 pens and a lower biomass), MSS welcomed this approach but advised that as the stocking density would not change, the approach does not influence their previous comments.

#### 5.4. Marine Scotland

- 5.4.1. Provided a separate statement with regard to the national significance of closed-containment technology to Scotland and the use of the technology elsewhere. This statement is summarised in section 8.3.

#### 5.5. SEPA

- 5.5.1. No objections to the proposed development and no consentability concerns in relation to CAR authorisation. (Since the SEPA response being provided a CAR authorisation for the proposed fish farm has been issued by SEPA).
- 5.5.2. In terms of benthic impacts, SEPA advised that the modelling undertaken indicates that a biomass of 3452 tonnes (with 100% of waste feed and 85% of faeces captured) would allow compliance with SEPA's sediment standards.
- 5.5.3. Water column- SEPA advised that the modelling undertaken by the applicant have been corroborated by SEPA's aquaculture modelling team.
- 5.5.4. Groundwater Dependent Terrestrial Ecosystems (GWDTE)- the NVC survey identified one habitat which had the potential to have groundwater dependence. SEPA advised that on reviewing the information provided by the applicant they are satisfied that the small area of habitat is likely to be surface water fed.

#### 5.6. Transport Scotland

- 5.6.1. No objections subject to the requirement for a Construction Traffic Management Plan to be submitted for approval prior to commencement of development.

#### 5.7. Queen's Harbour Master

- 5.7.1. No objection.

#### 5.8. Northern Lighthouse Board

5.8.1. The Northern Lighthouse Board provided recommendations with regards to buoys and lighting and a weekly check of the sites marking equipment.

#### 5.9. Ministry of Defence (MOD)

5.9.1. The MOD advised that the offshore aspect of the proposed development occupies a naval exercise area, however there are no concerns with the location specified in this regard. The application site is within the outer explosive safeguarding zone, the vulnerable building distance surrounding defence munitions at Coulport and Glen Douglas. The MOD provided advice on the requirements for the design of buildings within this zone, including glazing specifications and requested further information on the proposed structural form and materials of the main shore base building proposed. The applicant provided more detailed plans of the proposed building construction and materials to the MOD and the MOD then advised that subject to the development being implemented strictly in accordance with those details they have no objection to the development.

#### 5.10. Argyll and Bute Council Roads Authority

5.10.1. Argyll and Bute Council Roads Authority advised that they had no objections, however no detailed response was received.

#### 5.11. Argyll and Bute Council Flood Authority

5.11.1. Argyll and Bute Council Flooding advised that the Flood Risk Assessment (FRA) undertaken was generally acceptable but required an update to the FRA in relation to the method of the design of the proposed culverts prior to determination of the application. The applicant provided a letter of response to the Flood Authority and additional modelling data and the Flood Authority then confirmed that they had no objections subject to a condition on the sizing of culverts.

#### 5.12. Argyll and Bute Council Environmental Health

5.12.1 Environmental Health recommended conditions on lighting, amenity controls during both construction and operation as identified in the EIA Report (mitigation measures) and private water supply arrangements. Advisory notes were provided on site drainage, Construction Design and Management, Gulls in terms of design of buildings and sewage treatment.

#### 5.13. Health and Safety Executive

5.13.1 HSE initially queried the quantity of oxygen storage and the potential requirement for Hazardous Substances Consent. The applicant has since confirmed that the oxygen stored on site would be below the thresholds for Hazardous Substances Consent. HSE advised that the development would not be located within a safeguarding zone of an explosives site or within a consultation zone for major accident hazard pipelines and hazardous substances sites.



5.14. Scottish Water

5.14.1 No objections.

5.15. Argyll and District Salmon Fisheries Board (ADSFB)

5.15.1 ADSFB are opposed to further development of finfish aquaculture in general until the regulatory framework with effective regulation is introduced that prevents sea lice and escapes of farmed fish affecting wild salmonid fish populations.

5.15.2 ADSFB are opposed to the proposed development on the grounds that there is currently no fin-fish aquaculture present in this area.

5.15.3 ADSFB advised that salmon and sea trout populations in Argyll have declined massively in recent decades, several rivers in the Argyll area are categorised as grade 3 which demonstrates the fragility of the local wild salmon populations in the area. Further development of aquaculture will cause further decline in the wild salmonids natal to these areas.

5.15.4 ADSFB can see clear benefit in the use of closed and semi-closed containment systems once the technology is proven. ADSFB have a strong preference for this technology to be deployed and tested in an area where salmon farming is already taking place to allow the benefits of using this technology to be more clearly demonstrated and to explore options for reducing impacts on wild salmonids associated with traditional open-net salmon farming practices.

5.15.5 ADSFB commented that the EIA discusses two possible farming models but does not adequately consider alternatives.

5.15.6 ADSFB are opposed to the proposal on the grounds that it has potential to cause further decline in wild salmon and sea trout populations which are currently not meeting government defined conservation limits. It is important that this technology is deployed and tested in an appropriate area where impacts on wild salmonids are better understood.

5.16. Scottish Hydro Electric Transmission

5.16.1 No comments.

5.17. West of Scotland Archaeology Service (WOSAS)

5.17.1. WOSAS recommended that a programme of archaeological works are undertaken following the submission of a Written Scheme of Investigation (WSI) with regard to the historic farm buildings at Dail which would be lost as a result of the development.

5.18. Historic Environment Scotland (HES)

5.18.1 HES advised that there are no heritage assets within HES remit within the vicinity of the proposed development therefore HES had no comments to make.

5.19. Fisheries Management Scotland (FMS)

- 5.19.1 FMS advise that Salmon populations across Scotland and the North Atlantic have declined massively in recent decades in contrast to what the applicant has stated in the EIA Report. FMS can see clear benefit in the use of closed and semi-closed containment systems once the technology is proven. FMS have a strong preference for this technology to be deployed and tested in an area where salmon farming is already taking place to allow the benefits of using this technology to be more clearly demonstrated and to explore options for reducing impacts on wild salmonids associated with traditional open-net salmon farming practices. FMS commented that the EIA discusses two possible farming models but does not adequately consider alternatives.
- 5.20. Scottish Forestry
- 5.20.1 No response received.
- 5.21. Arrochar, Tarbet and Ardlui Community Council
- 5.21.1 Arrochar, Tarbet and Ardlui Community Council commented that the semi-closed system is the way forward for the fish farm industry with the husbandry of fish top of the agenda with a high percentage of the waste material removed and processed as a fertiliser by-product. The community council feel that this project brings the opportunity for much needed employment to the rural community with direct and indirect benefits to the community in dire need of regeneration. The community council broadly and in principle supports this proposal with the benefits to the deprived rural area being a significant factor.
- 5.22. Garelohead Community Council
- 5.22.1. Garelohead Community Council advised they have a neutral stance.
- 5.23. Lochgoil Community Council
- 5.23.1. Lochgoil Community Council were consulted and made comments; however, these comments were later withdrawn.
- 5.23.2. To note, Cove and Kilcreggan Community Council submitted comments in objection, however as the Cove and Kilcreggan Community Council area is outwith the National Park, the comments have been recorded as a representation rather than a consultation response. Comments in objection received from Ardentinny Community Council have also been recorded as a representation as Ardentinny Community Council were not formally consulted.

## Representations Received

- 5.24. In total **276** representations were received with **202** in objection to the proposed development, **72** in support of the proposed development and **2** neither supporting nor objecting to the proposed development.

- 5.25. **72** representations were received in **support**. Below is an executive summary of comments received in support.
- This project would be flagship for Scotland and spearhead aquaculture growth in Scotland
  - New employment, revenue generation and regeneration for this rural area
  - Positive economic impact on local businesses, services and trades
  - Diversification of economy largely based on tourism
  - Support for new technology that revolutionises aquaculture and improves fish welfare with less risk of negative impacts (compared to conventional open pen farming)
  - Locally sourced food is better for the climate.
- 5.26. To note that letters of support were received from Forestry and Land Scotland, Landcatch Natural Selection (Salmon breeding company), Biomar UK (fish feed company), Scottish Marine Technology Park, Salmon Scotland and the following Members of the Scottish Parliament (MSP):
- Jenni Minto MSP
  - Fergus Ewing MSP
  - Angus Robertson MSP
  - Pam Gosal MSP and Donald Cameron MSP
  - Finlay Carson MSP
- 5.27. **202** representations in **objection** were received. Below is an executive summary of comments received in objection.
- Inexperienced operator
  - Technology is inadequately tried-and-tested - no examples of operators that combine SCCS pens with onshore treatment of waste and problems with trials elsewhere (example from Canada cited)
  - Fundamental assessment flaws with no evidence of successful operation in practice to back up the theoretical assumptions
  - Exaggerated performance in the 85% projected collection of organic waste
  - Inadequate scrutiny by SEPA in issuing CAR licence and inadequate monitoring
  - Pollution of pristine waters by organic waste and soluble nutrients capable of promoting algal, bacterial and jellyfish blooms
  - There are other, more appropriate and less sensitive locations to trial untested technology
  - Risk of increased prevalence of sea lice and associated use of chemicals with impacts on protected wildlife and water quality
  - Loch Long has a notable seal population and other mammals which would be harmed
  - Impact on SAC qualifying species and Marine Protected Areas
  - Industrial-scale shore base with landscape and visual impact
  - Visual impact on unspoiled landscape character and views from A814 and scenic railway
  - Noise from operation (and associated vehicle movements)

- Nuisance odours – these have not been assessed fully in the EIA
- Light pollution
- Unsuitability of access road for quantum and type of vehicles
- Impact on quality of visitor experience and safety on important forest recreation/camping at Ardgartan and core paths (including Cowal and Three Lochs Way)
- Adverse effect on access to and navigation of the loch for all recreational users
- Harm to the natural environment and wildlife of the National Park will undermine existing tourism, jobs and commercial interests
- Shortcomings in the EIA assessment relating to cumulative impacts, light pollution, odour, access, and likely impacts on marine and benthic fauna
- Unsubstantiated claims and ‘greenwashing’ by the developers
- Development is contrary to the local development plan, the national park aims, United Nations Sustainable Development Guidelines and COP22 climate objectives
- The development would set a precedent for further fish farm development in Loch Long

5.28. To note that a letter of objection was received from Ariane Burgess MSP and Ross Greer MSP and comments in objection were received from the following groups/organisations:

- Scottish Creel Fisherman’s Federation
- Ardentinny Community Council (as noted above)
- Kilwinning Eglinton Angling Club
- Loch Lomond Angling Association
- Salmon and Trout Conservation Scotland
- AFF the Clyde (Against Fish Farming the Firth of Clyde)
- Friends of the Sounds of Jura
- COAST (Community of Arran Seabed Trust)
- Cove and Kilcreggan Community Council
- Fidra (Environmental Charity)
- Clyde Fisherman’s Association
- Portincaple Campaign Group

5.29. The full content of consultations and the representations is available to view on the National Park Authority’s Public Access website ([www.lochlomond-trossachs.org/planning/](http://www.lochlomond-trossachs.org/planning/) click on view applications, accept the terms and conditions then enter the search criteria as ‘2021/0357/DET’). The matters raised are addressed in the main planning assessment and comments raised are summarised in more detail in **Appendix 3**.

## 6. Policy context

### The Development Plan

- 6.1. Section 25 of the Town and Country Planning (Scotland) Act 1997 states that planning applications are to be determined in accordance with the Development Plan unless other material considerations indicate otherwise. The Development Plan comprises the Loch Lomond & The Trossachs National Park Local Development Plan (LDP) (adopted 2017) and Supplementary Guidance.

#### Local Development Plan (2017-2022)

- 6.2. The Local Development Plan sets out the vision for how the National Park should change over the next 20 years. The LDP covers the period from 2017 to 2026 and is updated every 5 years.
- 6.3. The following LDP Policies are relevant to the determination of this application:
- Overarching Policy 1: Strategic Principles
  - Overarching Policy 2: Development Requirements
  - Economic Development Policy 2: Economic Development in the Countryside and Small Rural Communities
  - Transport Policy 2: Promoting Sustainable Travel and Improved Active Travel Options
  - Transport Policy 3: Impact Assessment and Design Standards of New Development
  - Natural Environment Policy 1: National Park Landscapes, Seascape and Visual Impact
  - Natural Environment Policy 2: European Sites- Special Areas of Conservation and Special Protection Areas
  - Natural Environment Policy 4: Legally Protected Species
  - Natural Environment Policy 5: Species and Habitats
  - Natural Environment Policy 6: Enhancing Biodiversity
  - Natural Environment Policy 8: Development Impacts on Trees and Woodlands
  - Natural Environment Policy 9: Woodlands on or adjacent to development sites
  - Natural Environment Policy 11: Protecting the Water Environment
  - Natural Environment Policy 12: Surface Water and Waste Water Management
  - Natural Environment Policy 13: Flood Risk
  - Natural Environment Policy 14: Marine and Inland Aquaculture
  - Natural Environment Policy 15: Coastal Marine Area
  - Historic Environment Policy 3: Wider Built Environment and Cultural Heritage
  - Historic Environment Policy 7: Other Archaeological Resources
  - Waste Management Policy 1: Waste Management Requirement for New Developments
- 6.4. Full details of the policies can be viewed at: [www.lochlomond-trossachs.org/planning/planning-guidance/local-development-plan/](http://www.lochlomond-trossachs.org/planning/planning-guidance/local-development-plan/)

## Supplementary Guidance

- 6.5. The adopted Supplementary Guidance provides support to the policies of the LDP and carries the same weight in the determination of applications. The Supplementary Guidance of relevance to this application comprises:
- Design and Placemaking

## **Other Material Considerations**

### National Park Aims

- 6.6. The four statutory aims of the National Park are an important statutory material planning consideration which are engaged by this application. These aims are set out in Section 1 of the National Parks (Scotland) Act 2000 and are:
- to conserve and enhance the natural and cultural heritage of the area;
  - to promote sustainable use of the natural resources of the area;
  - to promote understanding and enjoyment (including enjoyment in the form of recreation) of the special qualities of the area by the public; and
  - to promote sustainable economic and social development of the area's communities.
- 6.7. Section 9 of the 2000 Act states that these aims should be achieved collectively. However, if in relation to any matter it appears to the Park Authority that there is a conflict between the first aim, and the other National Park aims, greater weight must be given to the conservation and enhancement of the natural and cultural heritage of the area.

### National Park Partnership Plan (2018-2023)

- 6.8. All planning decisions within the National Park require to be guided by the Partnership Plan, where they are considered to be material, in order to ensure that they are consistent with the Park's statutory aims. The following outcomes and priorities of the Partnership Plan are relevant.
- Outcome 1: Natural Capital
  - Conservation Priority 1.1: Habitats
  - Conservation Priority 1.2: Species
  - Outcome 2: Landscape Qualities
  - Conservation Priority 2.1: Landscape and Heritage
  - Outcome 3: Climate Change
  - Conservation Priority 3.1 Climate Change
  - Outcome 5: Recreation Opportunities
  - Outcome 6: Water Recreation
  - Outcome 7: Visitor Economy
  - Outcome 10: Placemaking
  - Outcome 11: Sustainable Growth

- Rural Development Priority 10.1: Improving Towns and Villages
- Rural Development Priority 10.2: Built Heritage
- Rural Development 10.3: Improved Resilience
- Outcome 11: Sustainable Growth

### Scottish Planning Policy

- 6.9. Scottish Planning Policy (SPP) is a statement of Scottish Government policy on how nationally important land use planning matters should be addressed across the country. It is non-statutory but directly relates to the determination of planning applications and appeals. As a statement of Ministers' priorities, the content of the SPP is a material consideration that carries significant weight, though it is for the decision-maker to determine the appropriate weight in each case.
- 6.10. SPP highlights that aquaculture makes a significant contribution to the Scottish economy, particularly for coastal and island communities and that Planning can help facilitate sustainable aquaculture whilst protecting and maintaining the ecosystem upon which it depends. Planning applications should demonstrate that operational arrangements (including noise, light, access, waste and odour) are satisfactory and sufficient mitigation plans are in place and that the siting and design of the cages, lines and associated facilities are appropriate for the location.
- 6.11. SPP summarises the considerations that are relevant to Planning assessments of aquaculture proposals including: impacts on, and benefits for, local communities; economic benefits of the sustainable development of the aquaculture industry; landscape, seascape and visual impact; biological carrying capacity; effects on coastal and marine species (including wild salmonids) and habitats; impacts on the historic environment and the sea or loch bed; interaction with other users of the marine environment (including commercial fisheries, Ministry of Defence, navigational routes, ports and harbours, anchorages, tourism, recreational and leisure activities); and cumulative effects on all of the above factors.
- 6.12. SPP also advises that Planning should not duplicate other control regimes such as CAR licensing by SEPA or fish health, sea lice and containment regulation by Marine Scotland.
- 6.13. SPP has a presumption in favour of development that contributes to sustainable development. SPP states that the planning system should support economically, environmentally and socially sustainable places by enabling development that balances the costs and benefits of a proposal over the longer term and that the aim is to achieve development in the right place, not to allow development at any cost. Thirteen principles of sustainable development to guide decisions are provided including protecting, enhancing and promoting access to natural heritage, including green infrastructure, landscape and the wider environment and giving due weight to economic benefit.

## National Planning Framework

- 6.14. The National Planning Framework (NPF) is the Scottish Government's statutory strategy for long term spatial development. The current version of this document is National Planning Framework 3 which was published in 2014. National Planning Framework 4 was published in draft format at the end of last year, for consultation. At the time of writing, the draft NPF4 has minimal weight in decision making.
- 6.15. National Planning Framework 3 explains that aquaculture is an important aspect of the economy across parts of coastal Scotland, supporting many jobs, often in small communities and representing a significant element of Scotland's exports. NPF3 highlights that the aquaculture industry has identified ambitious growth targets which the Scottish Government wants to see realised. NPF3 provides support for the sustainable growth of the aquaculture sector and sets a target for marine finfish production by 2020 (210,000 tonnes per annum).
- 6.16. The draft National Planning Framework 4 highlights that aquaculture is an increasingly important industry for Scotland, helping to sustain economic success in the rural and coastal communities of the north and west. The planning and licensing system should support the prosperity of the finfish, shellfish and seaweed sectors, including by guiding new development to locations that reflect industry needs and take into account wider marine planning.
- 6.17. The draft aquaculture policy – in NPF 4 - states that development proposals for aquaculture should be supported where they comply with the local development plan, the National Marine Plan and, where relevant, the appropriate Regional Marine Plan.
- 6.18. Development proposals for fish farm developments should demonstrate that operational impacts (including from noise, acoustic deterrent devices (where applicable) light, access, containment, deposition, waste emissions and sea lice, aquaculture litter and odour) are acceptable and comply with the relevant regulatory framework; and that significant cumulative impacts are appropriately managed; and the siting and design of cages, lines and associated facilities (including land based facilities) are appropriate for the location.

## National Marine Plan

- 6.19. Scotland's National Marine Plan sets out objectives and marine planning policies for the marine environment with general policies and then more detailed sectoral policies including for aquaculture. Applications for planning permission for finfish and shellfish farms are determined in accordance with the Local Development Plan and The National Marine Plan. The National Marine Plan policies set out that aquaculture developments should avoid and/or mitigate adverse impacts on the seascape, landscape and visual amenity of an area (following NatureScot guidance); that in relation to nutrient enhancement and benthic impacts, fish farm development is likely to be acceptable in Category 3 Areas (as set out under Locational Guidelines for the



Authorisation of Marine Fish Farms in Scottish Waters); that regulators should continue to utilise a risk based approach to the location of fish farms and potential impacts on wild fish and that consenting authorities should be satisfied that appropriate emergency response plans are in place.

### The Clyde Regional Marine Plan

6.20. The Marine (Scotland) Act 2010 allows for Regional Marine Plans to be developed to take account of local circumstances and smaller ecosystem units for inshore waters out to 12 nautical miles. The Clyde Regional Marine Plan is being developed to provide a statutory policy framework to support effective decision-making and appropriate inward investment and to support the delivery of Scotland's National Marine Plan in a regional context. The Clyde Regional Marine Plan is currently in draft and subject to further consultation and amendment prior to adoption. As such the Clyde Regional Marine Plan, at the time of writing has minimal weight in decision making.

## **7. Summary of supporting information**

7.1. The applicant has submitted the following documentation in support of the planning application:

- EIA Report (11 October 2021)
- Pre-Application Consultation Report (11 October 2021)
- Planning Statement (11 October 2021)
- Sustainability Checklist (11 October 2021)
- Design and Access Statement (8 February 2022)
- Economic Benefit Summary (4 April 2022)
- Atlantic Salmon Trust Statement (4 April 2022)
- Letter from applicant (10 June 2022) including further supporting information and suggested planning conditions, planning obligations and other commitments.
- EIA Report Addendum- SLVIA Addendum (28 June 2022)
- SLVIA Peer Review (1 July 2022)
- Letter re Felling and SLVIA (2 August 2022)

### Pre-Application Consultation (PAC) Report

7.2. The planning application is a "major" development, due to the size of the site. The applicant submitted a Proposal of Application Notice (PAN) on 4 June 2021 and the National Park response was sent on 24 June 2021. In accordance with Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013 pre-application consultation was undertaken and the pre-application consultation (PAC) report was submitted in support of the planning application.

7.3. The report sets out the consultation that was undertaken on the proposals in accordance with the statutory requirements for major development proposals. The

pre-application consultation event was undertaken during the temporary suspension of the requirement for public events due to covid-19; as set out in the Town and Country Planning (Miscellaneous Temporary Modifications) (Coronavirus) (Scotland) Regulations 2020. Two public live events were held online with information available on a website and a newspaper advertisement was placed. The applicant has confirmed that a total of 15 members of the public attended the online events. The feedback from attendees at events and consultees is summarised in the PAC report. Feedback included questions about the proposed development from attendees and specific concerns and advice on the content of the EIA Report from Fisheries Management Scotland. The PAC report details a number of changes in the design of the proposal as a result of the pre-application consultation undertaken.

- 7.4. In addition to the statutory consultation requirements, the applicant has undertaken extensive community consultation over a number of years, as the proposal has developed.

## **8. Planning Assessment**

### **The Principle of Development**

#### **8.1. Introduction**

- 8.1.1 This section of the report assesses the proposal against the Local Development Plan, National Marine Plan and all other material considerations.
- 8.1.2 The Local Development Plan, along with supporting Supplementary Guidance and Planning Guidance, provides a comprehensive suite of policies on which to assess the acceptability of a planning application. Set within the Plan is the high level Vision and Strategy for development in the longer term.
- 8.1.3 Determining the acceptability of the principle of a development is the first part of any planning applications' assessment. This concerns the development itself and its location. Once this is concluded then the assessment turns to the requirements set out in the Local Development Plan's more detailed policies. The assessment against these policies, while not specific to the development type, will also inform the overall assessment and compliance with the LDP which is brought together in the conclusion and assessment against the National Park aims.

#### **8.2. Principle of Development**

- 8.2.1. This section will firstly assess the proposal against the Aquaculture and Coastal Marine policies, as these are specific to this type of development. The assessment will then turn to locational need and any other

overarching material considerations that should be considered in respect of the principle of development.

- 8.2.2. Natural Environment Policy 14 (Marine and Inland Aquaculture) provides support for aquaculture proposals provided that there is no significant adverse effect, directly or indirectly on (a) an area controlled by the MOD that is used by the United Kingdom, NATO and allied forces for training purposes; (b) navigational and fishing interests and (c) existing aquaculture sites.
- 8.2.3. Natural Environment Policy 15 (Coastal Marine Area) provides support for development along the coastline where it is in alignment with National and Regional Marine Plan policies and objectives; is sensitive to any cumulative impacts from existing development in the area; and is outside the natural foreshore unless the development is considered essential for public utility services, water-based leisure or recreational uses in accordance with other local plan policies; and is able to protect public access to and along the coast.
- 8.2.4. The proposed development would accord with Natural Environment Policy 14: Marine and Inland Aquaculture part (a) as there would be no significant adverse effect on areas controlled by the MOD for training purposes. In terms of part (b) The Queen's Harbour Master and MOD have advised that there are no concerns in terms of navigation and The Northern Lighthouse Board have provided recommendations for the marking of marine equipment and structures with lights and buoys.
- 8.2.5. With regard to commercial fishing interests, The Clyde Fisherman's Association objected to the proposed development, commenting that the proposal would result in the loss of safe and productive fishing grounds in Loch Long. It is recognised that the proposed development would reduce available fishing grounds in Loch Long, however given the low numbers of fishing vessels using Loch Long it is concluded that the impact could not be described as significantly adverse.
- 8.2.6. For part (c) there are no existing aquaculture sites within Loch Long or Loch Goil. The closest existing aquaculture site is at Ardyne, Loch Striven.
- 8.2.7. The assessment against Natural Environment Policy 15 is more complicated given its requirement for development to align with the National and Regional Marine Plan policies and objectives. Considering the wide range of objectives / policies in the National Marine Plan this requires reference to the conclusions of the assessment against detailed LDP policies which are outlined later in this report. For ease, the following outlines some of the relevant National Park Authority's assessment conclusions with full details provided later in the report.

- The proposed development conflicts with several landscape related LDP policies and the associated purposes of the National Park designation.
- It is widely recognised that wild salmon are in decline and this is reflected in the fragile state of wild fish populations in the area.
- The Appropriate Assessment for this proposal has concluded there would be an adverse effect on the integrity of the Endrick Water SAC from the proposal due to the risk of farmed fish escaping.
- There has been no demonstration of overriding public benefits which justifies compensatory planting and the compensatory planting proposed is not sufficient to compensate for the permanent loss of woodland.

8.2.8. Taking the above into account, it is therefore considered that the proposed development would not accord with Natural Environment Policy 15. It would not be in alignment with the National Marine Plan, including Aquaculture Policy 5 which requires aquaculture developments to avoid and/or mitigate adverse impacts on the seascape, landscape and visual amenity of an area. It would also not align with General Policy 9 which requires development to comply with legal requirements for protected areas and protected species and must protect, and where appropriate enhance, the health of the marine area.

8.2.9. It is also not possible to conclude that the development would align with the objectives of the National Marine Plan (NMP) in relation to Wild Fish, which seek to maintain healthy salmon and migratory fish stocks. General Policy 19 stipulates that decision making will be based on sound scientific and socio-economic evidence and details that the deployment of new technologies on a limited basis and limited scale will improve understanding of impacts, mitigations and the potential for sustainability prior to full scale activity. Where evidence is inconclusive, and impacts of development are uncertain, decision makers are advised to apply precaution within an overall risk-based approach. The precautions taken should be considered based on risk, by balancing environmental, social and economic costs and benefits and should take account of legal designations.

8.2.10. In this case, the technology proposed has not been tested in Scotland, the deployment of the technology proposed would not be on a limited basis and limited scale and there is not a sound body of evidence on which to base decision making. The applicant has stated that “the Beinn Reithe salmon farm in Loch Long, if consented, will be the largest salmon farm in Scotland by a considerable margin”. The scale of the proposal is significant, the impacts of the development are uncertain, and a risk-based approach must be taken.

8.2.11. The NMP states that the potential for impact of escaped farmed fish on the genetic stock of wild salmonids is, as yet, not fully understood and the introduction of disease to wild populations is also a risk. Regulators are advised to continue to utilise a risk based approach to the location of fish farms and potential impacts on wild fish.

8.2.12. The principle of development is not therefore supported by the assessment against the Coastal Marine policy; however, consideration must also be given to any material considerations that could be considered in a balanced assessment of the application in recognition of its unique characteristics, which may justify a departure from the Local Development Plan policies.

### 8.3. Principle of Development: Other Material Considerations

8.3.1. The applicant has stated that the proposal is transformational to bring positive and long term economic, environmental benefits to the fish farming sector in Scotland. It is therefore considered by the applicant that the benefits to the Park and Scotland will outweigh any visual and landscape impacts.

8.3.2. Key to their supporting case, is the use of the semi-closed farming technology, which as outlined earlier is asserted will reduce the impacts on the water environment and deliver other significant benefits when compared to established “open” fish farm methods commonplace in the sector. This technology has yet to be used in Scotland, however the applicant cites the established use in Norway and the technical approval from SEPA that is already in place.

8.3.3. Open cage salmon farming in Scotland has been under increased scrutiny in recent years, due to concerns relating to environmental impacts, fish health and impacts on wild fish. There have been a number of inquiries and reports by Scottish parliamentary committees and the Scottish Government is due to publish its Vision for Sustainable Aquaculture this year. In addition, the aquaculture consenting system in Scotland is currently under a regulatory review by the Scottish Government. Recognising the decline of populations of Atlantic salmon, the Scottish Government have recently published the Scottish Wild Salmon Strategy. This document sets out a high-level vision and objectives to guide collective action for restoration and recovery of Atlantic salmon in Scotland.

8.3.4. Marine Scotland provided the National Park with a policy statement on the national/strategic significance of closed containment aquaculture technology to Scotland and the use of the technology elsewhere. This outlines that the Scottish Government has committed to explore closed-containment aquaculture systems, supports innovation in the sector and

wishes to see innovations developed and trialled in Scotland. It is acknowledged that approval of this planning application would be significant for the salmon farming industry in Scotland.

- 8.3.5. Whilst the potential benefits of the proposed technology are accepted, semi-closed containment systems have not been trialled in Scotland and there is a clear risk that the technology may not be successful. Marine Scotland have advised that it is challenging to obtain definitive data on the performance of semi-closed sites in other countries such as Norway and Canada. Many contributors have referenced the problems experienced with semi-closed containment systems in Canada when a technical fault led to a reduction in water quality and fish mortality during a trial of semi-closed containment technology. Contributors, including fisheries groups, have raised concerns and objections on the basis that the technology has not been proven and should be trialled in an alternative location, where fish farms are already established.
- 8.3.6. Marine Scotland Science have highlighted that the successful operation of the site relies on more technology and additional infrastructure than a traditional open net marine farming site and whilst the controlled environment may offer benefits, the failure of any of these elements could have a huge impact on the operation of the site. The applicant contends that the technology does not require testing and is “absolutely proven” due to the use of the technology in Norway for many years, however statutory consultees including Argyll and District Salmon Fisheries Board, as well as contributors, have highlighted the newness of the technology and therefore the associated risk. In addition, Salmon and Trout Conservation Scotland highlighted that the temperatures in Scottish loch’s are considerably higher than Norway. Warmer temperatures are a factor in both algae and sea lice development. The successful use of the technology in Norway, therefore, does not mean that the technology proposed is proven in a Scottish context.
- 8.3.7. There is therefore a question around the locational justification of this proposed site within the National Park. The applicant states an alternative site was explored but discounted; the Loch Long site having the key characteristics required of water depth, shelter and good separation from other fish farms. However, it is difficult to conclude that Loch Long is a unique site if this is the key site selection criteria when the length of coastline across the West of Scotland is considered. This is not the only option to locate this experimental farm. Scottish Planning Policy stipulates that planning authorities should apply the precautionary principle where the impacts of a proposed development on nationally or internationally significant landscape or natural heritage resources are uncertain but there is sound evidence indicating that significant irreversible damage could occur.

- 8.3.8. The National Marine Plan also states that where evidence is inconclusive and impacts of development or use on marine resources are uncertain, reasonable efforts should be made to fill evidence gaps and decision makers should apply precaution with an overall risk-based approach. Regulators are advised to utilise a risk-based approach to the location of fish farms and potential impacts on wild fish.
- 8.3.9. Inevitably, this causes a tension with the aspiration to test new technology within a National Park in a location which has designated sites and protected species of international importance, as is the case here.
- 8.3.10. Further detailed consideration is given to the potential impacts below in the subsequent sections of the report which cover the key issues in determination of this planning application in relation to the requirements set out in the Local Development Plan's more detailed policies on particular topics or themes and the National Marine Plan.

## **Planning Assessment - Detailed Policies**

### **Seascape, Landscape and Visual Impacts**

#### 8.4. Introduction

- 8.4.1. The National Park is a national designation recognising the high landscape value of the area and special qualities of national merit. It is home to some of the most iconic landscapes in Scotland which are valued by residents and attract high visitor numbers. The impact of the proposed development on landscape is one of the key planning considerations for this application.
- 8.4.2. The site of the proposed development is located approximately 3 km to the east of Beinn Reithe summit, adjacent to the western bank of the upper reaches of Loch Long, that forms part of the Firth of Clyde. The width of the loch in the locality of the site is particularly narrow and, that, in association with steep forested or woodland slopes leading down to the coastal edge, underpins a strong sense of intimacy and seclusion.
- 8.4.3. With an absence of noticeable development, especially along the western bank of the loch, the local landscape and seascape also exhibits a distinctive undeveloped appearance.
- 8.4.4. This part of Loch Long forms an important gateway into the National Park when traveling north from Helensburgh along the A814 and on the West Highland Railway Line, which both follow the eastern edge of the loch. The undeveloped seascape near to the site also forms a distinctive entrance into the National Park when travelling by boat and other water-based craft.
- 8.4.5. Settlement and development within this area of Loch Long is relatively sparse and in addition to the villages of Arrochar and the smaller

Ardgartan, there are a few scattered residential dwellings along the loch edge, mainly to the north. To the south, outwith the National Park boundary, the Finnart Oil terminal and the MOD base at Coulport are relatively prominent on the eastern side of the loch. With large-scale industrial infrastructure and often busy activity, these noticeably contrast with the relatively tranquil and smaller-scale seascape that typifies this part of the National Park.

8.4.6. In a wider context, Loch Long with its steep sides and forested setting significantly contribute to the scenic qualities of the National Park, particularly when viewed from higher ground. From surrounding hill tops, there are panoramic, large-scale views in which the loch forms a very important visual focus. From lower-lying roads and settlement, there are relatively long-distance views up and down the loch and in close proximity to the site from the A814, short range views across the water through intervening trees, towards nearby forested slopes.

8.4.7. In assessing landscape and seascape impacts the following terms are used:

- **Landscape character** is determined by the analysis of the physical landscape components, landform, landcover and the various settlement patterns;
- **Visual amenity** is the overall quality of the views people enjoy of their surroundings, which provides an attractive visual setting or backdrop for the enjoyment of people living, working, recreating, visiting or travelling through an area;
- **Special Landscape Qualities** include both landscape character and visual amenity and are used to define the characteristics that, individually or combined, give rise to an area's outstanding scenery.

#### 8.5. Landscape Character, Seascape Character and Special Landscape Qualities

8.5.1. In terms of landscape character, the terrestrial components of the proposed development would be located within the "Steep Ridges and Hills" Landscape Character Type and in close proximity (to the east of the site) to the "Steep Ridges and Mountains" landscape character type. This provides an opposing sense of enclosure.

8.5.2. Most of the site is located within the Shepherds Point to Coileissan Coastal Character Area that forms part of the wider Loch Long Seascape Area (as detailed in the Seascape/Landscape Assessment of the Firth of Clyde). Sensitive key characteristics include that the loch is long, narrow, steep-sided with irregular development and inaccessible coastline which creates seclusion. The loch is a marine gateway to the National Park, with no existing fish farms and there are panoramic views from higher elevations up and down the loch. The secluded character is a constraint to



development and a further constraint is potential inter-visibility with the MOD buildings and structures on the opposite shore which would create visual clutter.

8.5.3. The site and surrounding landscape are located within the Argyll Landscape Area. The Special Landscape Qualities of this area and those of the wider National Park that are evident within the area include:

- A world-renowned landscape famed for its rural beauty;
- Water in its many forms;
- The rich variety of woodlands;
- Settlements nestled within a vast natural backdrop;
- Famous through-routes;
- Tranquillity;
- The easily accessible landscape splendour;
- A remote area of high hills and deep glens;
- A land of forests and trees; and
- Arrochar's mountainous and distinctive peaks.

8.5.4. As part of the preparation of the Clyde Regional Marine Plan a Landscape/Seascape Assessment of the Firth of Clyde was produced. This assessment describes this area of coastline as having a low sensitivity to offshore development including fish farms, however, identifies that the narrowness of the loch is likely to limit the number and width of the structures. It also identifies the visibility of the coast and sea from coastal walking routes as a sensitivity. This coastline is described as being highly sensitive to opportunities for other built development such as roads and coastal infrastructure which are said to be severely limited by the steepness of hillsides. The opportunities for fish farm development close to and parallel to the shore is advised to be limited by the width of the loch which could easily be "filled up" by a large structure.

## 8.6. Applicant's Seascape, Landscape and Visual Assessment

8.6.1. A Seascape Landscape and Visual Assessment (SLVIA) was submitted as part of the EIA Report, along with photomontages of the proposed development from selected viewpoints. In general, the SLVIA as presented can be regarded to be broadly fit for purpose and the overall approach conforms with the relevant guidance, however there are several areas of concern with the assessment undertaken.

8.6.2. The main areas of concern are that a robust examination of the likely effects on Special Landscape Qualities has not been undertaken, the viewpoint assessment undertaken does not focus in on all potentially significant effects and the specific viewpoint locations chosen do not always represent the worst-case scenario. The visualisations were produced from nine viewpoints, however none of the visualisations show

the entire development, including the shore base, pontoon, slipway, tanks, silos etc as well as the marine enclosures, mooring and navigational buoys. In addition, no visualisations have been provided which show the proposed new section of access road coming down a steep embankment from the existing hairpin, to the immediate rear of the proposed shore base, which could have potentially significant landscape effects. The visualisations are therefore limited in providing a comprehensive understanding of all seascape, landscape and visual effects.

8.6.3. The SLVIA concludes that there would be some localised significant adverse landscape effects arising as a result of the development, however these would be restricted to the onshore immediate area and are not significant to the landscape and seascape as a whole. It is, however, the National Park Authority's view that the SLVIA understates the prediction of some effects, notably that "the proposed development would be largely screened from view by intervening trees alongside the A814 on the opposite side of the loch".

8.6.4. The SLVIA predicts significant visual effects, from the following locations, during the operational phase of the proposed development:

- Viewpoint 8 Tullich Hill (3.7km northeast) **moderate-major, significant**
- Viewpoint 9 Shoreline, on site boundary (360m to the enclosures) **moderate-major, significant**
- Viewpoint 4 (Addendum) Three Loch's Way (1.8km northeast) **moderate-major, significant**

Landscape and seascape effects are also predicted but are not considered to be significant.

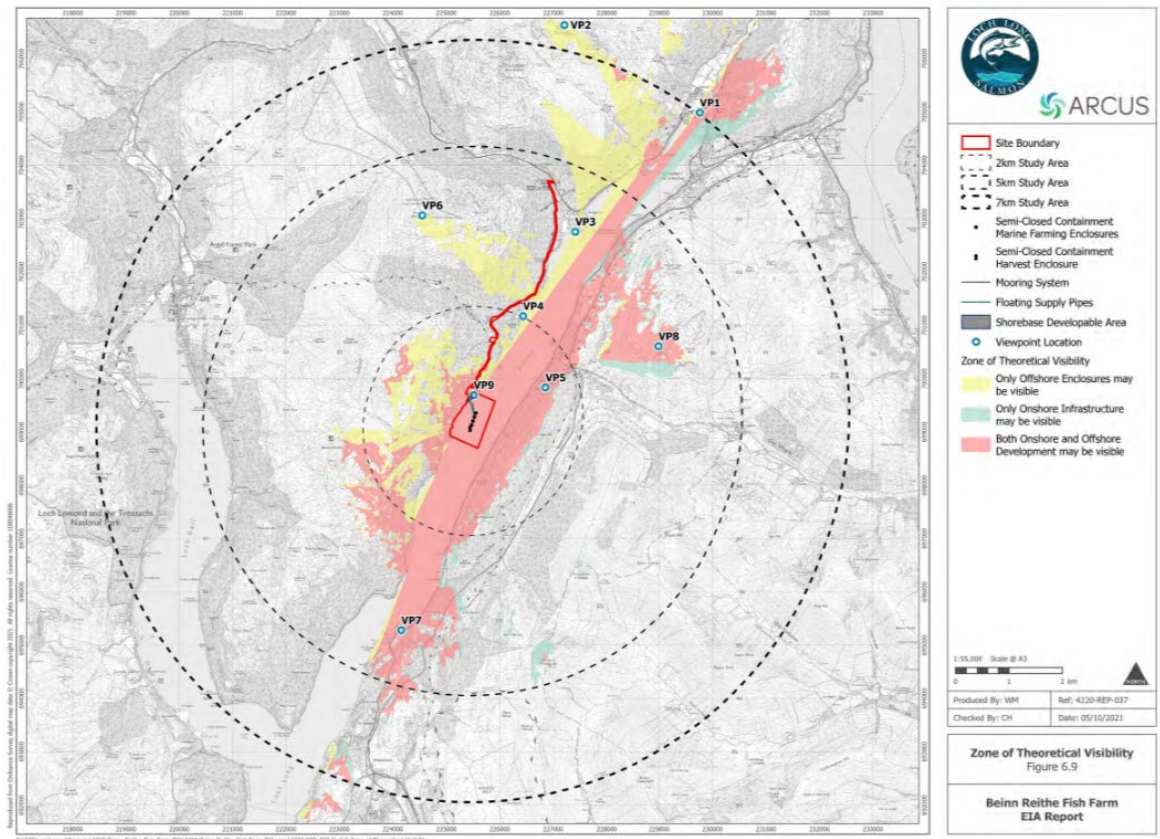


Figure 8: Viewpoint Location Plan (see also Appendix 4)

8.6.5. Following initial feedback provided to the applicant, additional landscape and visual impact assessment information was provided as an addendum to the EIA Report (SLVIA). This included four additional viewpoints from the Three Lochs Way on the eastern side of Loch Long. The assessment within the addendum concluded that the visual effects on views from the Three Lochs Way would be **moderate-major, adverse and significant** for 0.6-1km of the route and that a section of the route would experience intermittent visibility of the proposed development within wider views, filtered by tree cover/vegetation along the route resulting in a range of effects from “no significant” visual effects to “minor/moderate” effect.

## 8.7. The Policy Background to Landscape and Visual Assessment

8.7.1. The policies of the Local Development Plan, the National Marine Plan, the National Park Partnership Plan and Scottish Planning Policy require the Special Landscape Qualities and landscape character types to be conserved and enhanced. The National Park Partnership Plan commits to enhancing the National Park’s Special Landscape Qualities by protecting tranquil qualities particularly on undeveloped loch shores and protecting views to lochs. The transport routes around the northern end of Loch Long are identified as main travel corridors where people experience the landscape.

8.7.2. National Marine Plan policy states that marine planners and decision makers should ensure that development and use of the marine environment takes seascape, landscape and visual impacts into account. The National Marine Plan stipulates that development that affects National Parks should only be permitted where it will not adversely affect the integrity of the area or its special qualities for which it has been designated; or any such adverse effects are clearly outweighed by social, environmental or economic benefits of national importance.

8.7.3. The following Local Development Plan policies are relevant:

Overarching Policy 1: Strategic Principles states that all development should:

- Relate well to the landscape context and setting, be sympathetic to local built forms and materials including historic street pattern, scale, massing and design;
- Respect the important physical/historical/landscape/cultural features of the site and surrounding area; and
- Incorporate appropriate soft and hard landscaping, a planting scheme and measures to protect existing trees and other landscape features.

Overarching Policy 2: Development Requirements: Landscape and Visual Amenity states that development proposals should safeguard visual amenity and important views, protect and/or enhance rich landscape character and features and areas designated for their landscape values at any level.

Natural Environment Policy 1: National Park Landscapes, Seascape and Visual Impact states that development will protect the special landscape qualities of the National Park in accordance with The Special Landscape Qualities of Loch Lomond and The Trossachs National Park (SNH 2010). Development proposals will be required to be sympathetic to their setting and minimise visual impact, including areas of wild land character and wild land areas.

Natural Environment Policy 11: Protecting the Water Environment requires development to ensure no significant adverse impact on the water environment by protecting and enhancing the landscape values and physical characteristics of water bodies and protecting opportunities for public access to and recreation and enjoyment on and around lochs and the coastal marine area.

8.7.4. The Design and Placemaking Supplementary Guidance highlights that in order to retain the predominantly rural character, developments should be well integrated into their landscape settings. Similarly, the guidance

published by NatureScot “The Siting and Design of Aquaculture in the Landscape- Visual and Landscape Considerations” describes key principles to consider when siting shore-based facilities including that the infrastructure associated with shore bases is more likely to be in keeping with areas where there is some existing development rather than relatively remote landscapes or “isolated” coast. Another key principle is that any new development should aim to reflect the scale and distribution of existing built pattern.

- 8.7.5. In terms of good design, development that does not dominate its setting and planting that integrates the development into the setting are highlighted within the National Park Design and Placemaking Supplementary Guidance. No detailed landscaping proposals have been submitted with the planning application. A plan with indicative areas of tree planting was provided in relation to the proposed compensatory tree planting requirements and a letter submitted latterly by the applicant advises that supplementary planting will be undertaken.
  - 8.7.6. The Design and Placemaking Supplementary Guidance identifies intrusive visible access roads as an example of bad design when siting buildings in the countryside.
- 8.8. Planning Assessment of landscape impacts
- 8.8.1. The proposed development would have an industrial character and would notably contrast with, and detract from, the largely undeveloped and remote character of the local landscape. The proposed development would be very noticeable in such a sensitive landscape setting. The terrestrial development would adversely affect the marked transition of steep-sided hills rising dramatically from the narrow loch and it would significantly erode several key characteristics that are integral to defining the marine and landscape gateway into the National Park at this location.
  - 8.8.2. The proposed development would introduce man-made structures into the coastline and associated noise and disturbance that is not currently experienced. Lighting on land and water-based infrastructure would be very obvious during dark hours, contrasting with the otherwise unlit and undeveloped locality.
  - 8.8.3. In terms of seascape character, the proposed development would notably detract from most key characteristics of the Coastal Character Area. The proposed development would introduce substantial new structures into an undeveloped part of the seascape and, if consented, the proposed development would be a significant departure away from the existing pattern of irregularly distributed modest development to the western shore. Considering the proposal in association with the oil terminal and MOD base, outwith the National Park to the south, the influence of

prominent industrial infrastructure at a marine entrance to the National Park would notably increase. The integrity of the important marine gateway into the National Park would be significantly eroded.

- 8.8.4. Considering the undeveloped, remote and secluded nature of the western shore, the proposed development would appear highly incongruous. Although the proposed enclosures would follow the relatively simple alignment of the coastal edge, the proposed in-loch development would occupy a very narrow section of the loch and therefore, its scale and associated sense of intimacy would be adversely affected. Special Landscape Qualities such as tranquillity and the scenic composition of the narrow loch enclosed by steep rising hills are integral to the quality of the seascape and the proposed development would significantly erode several Special Landscape Qualities that are integral in defining the landscape and seascape gateway into the National Park. Seascape effects are judged to be detrimental to the integrity of the Shepherd's Point to Coileasan Coastal Character Area and the part of the Loch Long Seascape Area within the National Park.

## 8.9. Summary of Visual Impacts

- 8.9.1. In terms of views and visual amenity it is considered that the proposed development would result in a number of significant visual effects. The main locations are as follows (see location plan Figure 1: Location Plan and **Appendix 4**):
- A814: although trees line most of the route, during winter months at least, the proposed development would appear very noticeable through the trees when passing by the site. With a complex composition of industrial infrastructure, it would introduce a major visual focus that notably contrasts with the surrounding scenic composition of undeveloped forestry and uninterrupted open water.
  - Three Lochs Way: from approximately 2.5 kilometres of this important route that leads across largely open ground, the cages and associated infrastructure would appear very obvious on the loch. Although this would only tend occupy a small proportion of the view at this distance, the loch forms a very important visual focus and it would significantly detract from the scenic composition of open water and remote forested slopes.
  - Hills and summits: from most open parts of accessible hills that surround the loch, it is predicted that significant visual effects are likely to be experienced within approximately 5 km from the site.
  - Boat users: when travelling up and down the loch, it is clearly apparent that the views of boat users when passing by the site, including those undertaking recreational activity, would be significantly affected by views of highly incongruous development.

## 8.10. Summary of effects of recent tree felling and loss of woodland at the site

8.10.1. During the time between the original SLVIA being undertaken and the reporting of this planning application to The National Park Board; Forestry and Land Scotland commenced felling of woodland at the proposed shore base location and the surrounding commercial forestry coupes. This felling has been undertaken in advance of the timescales outlined in the approved Land Management Plan for Ardgartan (planned for 2025-2029) and it is understood that further felling is proposed in this area. The proposed shorebase location has been felled, with isolated broadleaved trees retained at the loch shore.



Figure 9: View south from existing access track to application site (August 2022)

8.10.2. The SLVIA and supporting photomontages were undertaken on the basis of the backdrop of the forested landscape, with woodland along the loch edge included as “embedded mitigation” and proposed buildings described as being located within woodland. The SLVIA describes the topography of the site and immediate landscape and seascape context as “steep forested slopes rising directly from the coast with commercial forestry extending to the shoreline”. The “backdrop of commercial forestry” is said to help “absorb” the man-made structures into the seascape and landscape.

8.10.3. Given this change to the characteristics of the site context, a statement was requested from the applicant on whether the tree felling undertaken and proposed, materially affects the conclusions of the SLVIA and the

associated addendum. The applicant responded that the proposed development would be visible alongside felling operations within the forest and would be within an “active landscape” with vehicle movement and felling activities. The statement provided advises that the landscape character of Ardgartan Forest will change from commercial forestry to a scarred hillside, until the replanted trees grow. The statement, however, concludes that the tree felling would not materially affect the conclusions of the SLVIA, that the proposed development would result in some localised significant adverse landscape effects, however these would be restricted to the onshore immediate area and are not significant to the landscape and seascape as a whole.

8.10.4. The National Park landscape adviser has advised that it is very apparent that during the early stages of the operational development, all terrestrial based infrastructure, including the new access road leading up the hillside, would be highly visible from many locations and this would be exacerbated by the cumulative effects with ongoing forestry operations.

8.10.5. Whilst new tree and shrub planting has now been proposed by the applicant to mitigate the loss of trees and provide additional screening, this would take years to establish. On completion of the forestry felling, the surrounding landscape would be replanted with 70% Birch and 30% other native broadleaves. Although this would provide a more semi-natural setting than the pre-existing forestry, during the winter months the proposed development would be more noticeable from some locations when compared to the screening effect of dense larch. At year 10 it is likely that the height of the Birch trees would reach 5-6 metres and consequently the infrastructure such as the oxygen vessels (maximum height 11.5 metres), feed silos (maximum height 8 metres) and water treatment plant and storage tank (maximum height 12 metres) would remain very noticeable in the medium to longer term.

#### 8.11. Conclusion of Landscape, Seascape and Visual Assessment

8.11.1. The National Park Authority’s view is that the proposed development presents a number of significant landscape, seascape and visual issues. It would erode many distinctive characteristics and qualities of the surrounding seascape/landscape and consequently, the strategic importance of the undeveloped gateway into the National Park would be compromised. The proposed development would be very noticeable from some busy road and recreational routes, where the appreciation of the undeveloped loch and surrounding hills underpin a highly scenic visual composition.

8.11.2. Concerns were raised by many of those who made contributions objecting to the proposed development about the impacts of the proposal on the landscape with comments made on the industrial scale of the



shore base and the visual impact on the unspoiled landscape and views from the A814 and the scenic railway.

- 8.11.3. In general, the proposed development would not relate well to the landscape context, nor respect the important physical/historical/landscape/cultural features of the site and surrounding area. As such, the effects of the proposed development do not comply with Overarching Policy 1. The effects of the development would not, on balance safeguard visual amenity and important views, nor protect landscape character, and features and areas specifically designated for their landscape value. As such the proposed development does not comply with Overarching Policy 2. The proposed development would not comply with Natural Environment Policy 1 as it would not protect some of the Special Landscape Qualities of the National Park and overall would not be sympathetic to its setting.
- 8.11.4. The proposed development conflicts with several landscape related policies, including those of the National Marine Plan and the associated purposes of the National Park designation. When balancing material considerations, therefore, great weight should be given to the conservation and enhancement of this nationally important landscape.
- 8.11.5. The applicant has suggested some minor changes to the proposals would be possible, including reducing the height of the oxygen tanks and feed silos and enhanced planting of native trees around the proposed road access and shorebase. These measures do not mitigate the adverse impacts to a degree that would make the proposed development acceptable in landscape terms.

#### 8.12. Wild Fish Interactions

- 8.12.1. As referenced above, The National Marine Plan stipulates that regulators should continue to utilise a risk-based approach to the location of fish farms and potential impacts on wild fish. Wild Fish Policy 1 states that the impact of development and use of the marine environment on diadromous fish species (fish that migrate between freshwater and saltwater) should be considered in marine planning and decision-making processes. Pressures on wild fish populations from salmonid aquaculture include sea lice, disease and interbreeding of escaped farmed fish with local wild fish.
- 8.12.2. The application site is located 20km north of the likely migration route of post-smolts emigrating from the Endrick Water SAC (designated for Atlantic salmon and lamprey) in the wider Firth of Clyde channel and it is therefore possible that sea lice originating from the proposed farm could be dispersed south into the wider Firth of Clyde channel. Any escapes of farmed salmon could have adverse impacts on wild salmonid populations.

There is connectivity with the Atlantic salmon feature of the Endrick Water SAC.

- 8.12.3. It is widely recognised that wild salmon are in decline, and this is reflected in the categorisation of local salmon rivers as Category 3 under the Conservation of Salmon (Scotland) Regulations 2016 which means that they have less than a 60% probability of meeting their conservation limit and management actions are required. Interactions with wild fish therefore require to be considered carefully.

### 8.13. Sea Lice

- 8.13.1. Farmed fish are hosts to parasitic sea lice which are naturally occurring and are distributed by wind and tide. Sea lice attach themselves to the skin of salmon and feed on their skin and blood causing wounds. Female sea lice lay eggs which hatch and are transported by water movements to both farmed and wild fish. Salmon aquaculture can therefore result in elevated numbers of sea lice in open water which could have an adverse effect on wild salmonids (salmon and sea trout) as well as on the welfare of farmed stock.
- 8.13.2. Wild salmon can be exposed to sea lice from fish farms close to salmon rivers during their migratory periods and sea trout remain in coastal waters throughout the year so are potentially at greater risk.
- 8.13.3. The rivers around Loch Long are known to have fisheries for salmon and sea trout. Atlantic salmon is a European protected species and as above salmon populations have declined over recent decades. Both Atlantic salmon and sea trout are on the Scottish Biodiversity List. Atlantic salmon is also a Priority Marine Feature.
- 8.13.4. Wild Fishery interests have raised concerns about sea lice and escapes from fish farms. Argyll and District Salmon Fishery Board (ADSFB) have objected to the proposed development on the grounds that there is currently no finfish aquaculture in the area. The ADSFB advise that in common with salmon populations across Scotland, salmon and sea trout populations in Argyll have declined massively in recent decades. The ADSFB view is that the further development of aquaculture will cause further decline in wild salmonids.
- 8.13.5. Several methods are used to control levels of sea lice at aquaculture sites, including the use of chemicals, the use of technology and the use of cleaner fish (native marine fish such as wrasse that eat sea lice). The applicant contends that the technology proposed would eliminate sea lice due to the semi-closed nature of the farming enclosures. The impermeable bag being a physical barrier impermeable to infective planktonic sea lice. In addition, the water drawn into the farming

enclosures is taken via pipes from greater depths (at least 20m deep) below the top of the water column (where the planktonic life stage of sea lice are usually found). These design features are proposed to reduce the likelihood of sea lice entering the system; being reproduced in the farmed environment and transmitting sea lice to wild salmonids.

- 8.13.6. NatureScot have advised that they anticipate that the deployment of this technology is likely to ensure low levels of sea lice will be maintained within the cages however they advise that while literature suggests that the technology is effective in reducing sea lice levels it is evident that it may not prevent them entirely. As such it remains likely that the farm could result in sea lice entering the marine environment. As above, it is possible that sea lice originating from the proposed farm could be dispersed south into the wider Firth of Clyde channel. There is therefore potential connectivity with the Atlantic salmon feature of the Endrick Water SAC.
- 8.13.7. Details of the proposed sea lice management strategies have been outlined in the draft Farm Environmental Management Plan (FEMP) in a Draft Sea Lice Monitoring Strategy. This includes details of monitoring via regular fish checks and implementation of trigger levels for management action as well as contingency measures and treatments to be used should sea lice be recorded within the enclosures e.g. the deployment of cleaner fish, the use of well boat and bath treatments including the use of hydrogen peroxide. The applicant has also committed to regular fallowing- a period of time at the end of a production cycle when there would be no fish within the marine enclosures to allow the seabed to rest and recover and equipment would be cleaned and disinfected.
- 8.13.8. Whilst the applicant contends that the technology proposed will eliminate sea lice, a number of consultees and contributors have raised concerns about the potential for sea lice and the evidence around the technology proposed. Marine Scotland Science have highlighted that the majority of pen water from the site is to be directly discharged into the loch and therefore if lice levels were to increase within the pens, the proposed development would have the potential to increase the risk to wild salmonids.
- 8.13.9. NatureScot advise that the risk of the proposed site contributing significantly to sea lice levels in the wider Firth of Clyde appears to be low, however without clear evidence in a Scottish context they consider it precautionary to conclude that there is a likely significant effect on the Atlantic salmon feature of the Endrick Water SAC. As a result, an Appropriate Assessment was undertaken for the Endrick Water SAC. In relation to sea lice this assessment concluded that with mitigation

measures in place, the proposed semi-closed system would remove the potential for effects from sea lice interaction on wild salmonids.

- 8.13.10. NatureScot have recommended that should the application be approved; an appropriate monitoring and review process would be required to provide a framework to review sea lice monitoring data and a mechanism to influence the future management of the farm should monitoring indicate that sea lice levels fail to be maintained at very low levels. Marine Scotland have recommended that strict control of sea lice should be practiced throughout the year. Numbers of sea lice at fish farms require to be reported to Marine Scotland on a regular basis.

#### 8.14. Containment and Risk of Escapes

- 8.14.1. There are various scenarios which may result in escapes of farmed salmon including operational accidents, predator interactions, equipment failure or adverse weather events. Escapes of farmed salmon from fish farms are a cause for concern for a number of reasons including the potential spread of sea lice and breeding of escaped fish with wild Atlantic salmon which can have negative consequences for fitness and viability of wild populations. The location of the application site in Loch Long, with connectivity to the Endrick Water SAC and its population of Atlantic salmon means that a potential escape of farmed fish is a significant concern.
- 8.14.2. Fisheries Management Scotland, the representative body for District Salmon Fishery Boards and Fisheries Trusts across Scotland has expressed concern that the technology is untested in Scottish waters. Fisheries Management Scotland, Argyll District Salmon Fishery Board and Argyll Fisheries Trust all expressed concern about the fragility of the local salmon population. Fisheries Management Scotland has highlighted that wild salmon populations in Scotland are in crisis and any additional pressure from sea lice and/or genetic introgression arising from escaped farmed fish cannot be considered sustainable.
- 8.14.3. The draft Farm and Environment Management Plan includes regular monitoring of equipment, to prevent equipment failure but this does not remove the fact that although there should be low risk as a result of the rigorous checks in place, if there is an incident which allows fish escapes then there could be a high impact on the wild salmon population.
- 8.14.4. Marine Scotland data shows that a number of escapes happen every year (17 escape events in 2021 and 5 escape events to date in 2022). Notably, in 2020 there was an escape of farmed salmon from a fish farm in Carradale, Argyll. As a result of this incident farmed salmon were found both within and outwith the wider Firth of Clyde including in the Endrick Water SAC.

- 8.14.5. The applicant advises that the application site is within a sheltered area of Loch long that is not exposed to significant wave or tidal action which reduces the risk of escapes due to mooring or equipment failure. The proposed equipment is designed for the conditions at the site with modelling undertaken to inform the design including wave modelling and mooring analysis. In addition, the marine enclosures proposed are designed to reduce the likelihood of escapes of farmed fish. The enclosures have a “double bag” design with a net enclosure inside an opaque and impermeable bag which provides an additional barrier between the fish and the open water.
- 8.14.6. The Scottish Government has published a Technical Standard for Scottish Finfish Aquaculture which outlines requirements for training, equipment specifications and operating procedures in order to minimise the risk of escapes across the industry. The applicant has confirmed that the marine farming enclosures will be installed to meet the Scottish Technical Standard. Site specific equipment attestation statements have been submitted by the applicant from the potential suppliers of the semi closed containment systems. NatureScot advised that the applicant should adhere to the Technical Standard for aquaculture to reduce the risk of equipment failure and the subsequent occurrence of any significant escape of farmed salmon.
- 8.14.7. Marine Scotland Science have advised that they have been unable to complete an assessment of the proposed development in terms of the mooring analysis and containment. This is because the applicant has submitted a mooring analysis which has been based on four marine enclosures rather than four marine enclosures and a harvesting enclosure as detailed in the planning application. Marine Scotland Science cannot therefore advise that the proposed mooring grid and mooring lines would be suitable.
- 8.14.8. The applicant has prepared an Escapes Response Plan (within the Draft Farm and Environmental Management Plan). The Escapes Response Plan outlines the measures to be taken in the event of an escape event including fisheries monitoring, reporting, record keeping and communications protocols. A Draft Wild Fish Monitoring Plan has also been developed by the applicant in collaboration with the Argyll Fisheries Trust and Marine Scotland with the aim of facilitating feedback into the farm management process. This would consider sea lice production, freshwater and genetic monitoring to establish data to detect potential effects of the development on local wild fish.
- 8.14.9. NatureScot advise that the proposal is likely to have a significant effect on the Atlantic salmon feature of the Endrick Water SAC as a result of the

potential for genetic introgression should farmed Atlantic salmon escape into the wild. As a result, an Appropriate Assessment was undertaken for the Endrick Water SAC.

- 8.14.10. This assessment concluded that there would be an adverse effect on the integrity of the Endrick Water SAC due to the risk of farmed fish escaping. It is not possible to state that there will not be an incident resulting in farmed fish escaping and interacting with wild salmon which could pose a significant threat to the existing population. Any incidents resulting in fish escape are high risk to the population.
- 8.14.11. In this location, which has a fragile salmonid population it is not possible to state that there would not be an adverse effect on the integrity of the Endrick Water SAC.
- 8.14.12. Risk associated with escapes of farmed salmon and the adverse effect on the integrity of the Endrick Water SAC, in combination with advice from Marine Scotland Science that they are unable to complete an assessment of the proposed development in terms of the mooring analysis and containment, means that officers are left with a body of concern and highlighted risk to a designated site which is already in a fragile condition.
- 8.14.13. Whilst NatureScot advised that the proposal could be progressed with appropriate mitigation, they stated that they objected unless an Environment Management Plan and the relevant Technical Standard for aquaculture equipment are adhered to, as it could affect internationally important natural heritage interests. Although, the applicant proposes a detailed Farm Environment Management Plan and compliance with the Technical Standards, it is not possible to state that there would not be an incident resulting in farmed fish escaping and interacting with wild salmon which could pose a significant threat to the existing population. Any incidents resulting in fish escape in Loch Long are high risk to the fragile salmonid population. The technology proposed has not been tested in Scotland and there isn't a body of evidence on the technology being proven to reduce escapes. It is therefore not possible for officers to conclude that there will not be an adverse effect on the integrity of the Endrick Water SAC.
- 8.14.14. It is acknowledged that the officers have reached a different conclusion to NatureScot on the effect on the Endrick Water SAC. See conclusion of HRA in **Appendix 2**.
- 8.14.15. The National Marine Plan policies and objectives and policies on aquaculture and wild salmon and diadromous fish include maintaining healthy salmon and diadromous fish stocks and advise that regulators

should continue to utilise a risk based approach to the location of fish farms and potential impacts on wild fish.

- 8.14.16. Natural Environment Policy 2: European sites- Special Areas of Conservation and Special Protection Areas states that where an appropriate assessment concludes that the proposed development will affect the integrity of a site, the proposal will only be permitted where (a) there are no alternative solutions; and (b) there are imperative reasons of overriding public interest, including those of a social or economic nature. In this case, a location elsewhere would be an alternative solution and there are no imperative reasons of overriding public interest. This means that the proposed development cannot be supported.

8.15. Predator Interactions- Marine Mammals

- 8.15.1. Traditional open net fish farms attract predators such as seals who attempt to catch fish. This can result in damage to nets and equipment, harm to fish welfare, escapes from nets and economic loss. Methods used to deter predators such as seals include anti-predator nets and Acoustic Deterrent Devices (ADD's) which emit high frequency sounds to deter marine mammals. Net entanglement can also be an issue with marine fish farms with marine mammal predators.
- 8.15.2. There are no designated sites for marine mammals within 30km of the application site however six marine mammal species are known to be present within the study area used for the EIA Report including grey seals, harbour seals and harbour porpoise.
- 8.15.3. The Draft Farm and Environmental Management Plan (FEMP) that was submitted with the planning application outlines that the impermeable and opaque enclosures reduces interest and interference from marine predators by removing visual clues of farmed stock and eliminates the requirement for ADD's or anti-predator nets. A Predator Exclusion Plan would be produced prior to operation of the development. Nature Scot advised that they are satisfied that there would be no adverse impacts to marine mammals (seals and cetaceans). With a requirement for species protection plans for seals and otters included in the FEMP there would be no adverse effect on marine mammals in accordance with Natural Environment Policy 4.

8.16. Predator Interactions- Wild Birds

- 8.16.1. Wild birds can predate on fish farms and nets are therefore used to prevent access to the fish farm enclosures. The use of such nets, however, means there is a risk of entanglement. The applicant proposes to either use pole mounted top nets or a "hamster wheel" style net.

- 8.16.2. NatureScot advise that the application site is within foraging range of gannets from the Ailsa Craig SPA. Other marine birds may also be attracted to finfish farms however there is limited potential connectivity between the application site and the likely core foraging areas for SPA populations of other species. Given the foraging range of breeding gannets (mean foraging range 120.4km and mean maximum foraging range of 315.2km) there is potential connectivity between gannets from SPA's and all marine waters across Scotland suitable for finfish aquaculture. Gannets are identified in the National Park Partnership Plan as a "flagship" species targeted for action under the National Park's Biodiversity Action Plan (Wild Park).
- 8.16.3. NatureScot note that the applicant is considering the use of pole mounted top nets (with a mesh size of 100mm or less as per NatureScot guidance). Should pole mounted top nets be used, NatureScot advise that the location of the proposed fish farm is likely to be relatively low risk however they provided further advice in relation to conditions required to ensure the monitoring of the use of pole mounted top nets and bird entanglement/entrapment. This would include prompt notification of any concerning patterns of entrapments or entanglements.
- 8.16.4. Due to the application site being within the foraging range of gannets from the Ailsa Craig SPA and the potential impacts on qualifying features of the SPA an Appropriate Assessment was undertaken in accordance with Natural Environment Policy 2. This assessment concluded that with appropriate mitigation measures in place the proposed development would not have an adverse effect on the integrity of the Ailsa Craig SPA. Suitable planning conditions could be used to ensure the required mitigation measures are in place.
- 8.16.5. Should consent be granted a condition would be required to ensure that: daily records of wildlife entanglement/entrapment are made and submitted regularly (4 monthly) to the National Park and NatureScot; that there is immediate notification in the event of any significant entrapment or entanglement of gannets or other SPA interests ; that adaptive management approaches will be agreed and that the final design of the pole mounted top nets is submitted for the approval of the Planning Authority.
- 8.17. Fish Waste, Benthic Impacts and Nutrient Enhancement
- 8.17.1. Waste feed and faecal material from fish farms has the potential to impact on the seabed in a number of ways. This can include smothering with carbon and soluble nutrients (such as ammonia, nitrates and phosphates) released into the water column resulting in potential eutrophication which may lead to an increased abundance of phytoplankton which may result in harmful algal blooms.



- 8.17.2. Marine Scotland set locational guidelines for the authorisation of marine fish farms in Scottish waters. Areas are designated on the basis of predictive models to estimate environmental sensitivity (nutrient enhancement and benthic impact) of sea lochs. Loch Long is a category 3 area where fish farm development is likely to be acceptable, subject to other criteria being satisfied.
- 8.17.3. The proposed marine enclosures have been designed to limit the amount of waste entering the Loch Long waters. Water released directly from the marine enclosures via the ports, may contain some fractions of faeces; however, the majority of waste (feed and faecal) would be collected in the sump and pumped out via an external discharge hose which would then be transferred to the shore for treatment. The wastewater would be de-watered at the treatment plant with the treated effluent being discharged to Loch Long via an outfall. The applicant references modelling undertaken which has demonstrated that 85% of faeces will be caught and 100% of waste food.
- 8.17.4. Benthic surveys have been undertaken of the seabed in the location of the proposed development and modelling has been undertaken to predict the scale of the impacts on the seabed. A Nutrient Modelling Report was submitted as part of the EIA Report. Modelling shows that the nutrient enhancement index would increase from 1 to 2, but this would not impact the overall combined locational guideline index.
- 8.17.5. The EIA report concludes that the proposed development is unlikely to make a significant contribution to nutrient enhancement or to the likelihood of harmful algal blooms and no significant effects are predicted to occur. SEPA have advised that the findings of the applicants modelling have been corroborated by SEPA's aquaculture modelling team. Marine Scotland Science have advised that the proposal would not result in a change to the current category 3 status of Loch Long.
- 8.17.6. Water quality within the marine farming enclosures would be monitored on a daily basis with probes measuring levels of oxygen, pH, temperature and turbidity. Water samples will also be taken from the water outside the enclosures and assessed. The applicant has been granted a SEPA CAR authorisation for the proposed development which controls the impact on the water environment. The licence is for the abstraction of sea water and the discharge of wastewater from the proposed fish farm. The CAR authorisation also controls the medicines and chemicals used and includes biological seabed standards which must be met in operation of the fish farm. No medicinal treatments will be used, in the eventuality that sea lice are detected during monitoring. Should there be any evidence of sea lice then hydrogen peroxide will be used for treatment as this

degrades to water and oxygen. SEPA are responsible for controlling water column impacts.

- 8.17.7. The applicant has proposed a fallow period of 2-4 weeks, with a minimum 4 week fallow period at least once every two years. The CAR authorisation granted by SEPA stipulates that in any 24 month period there must be a minimum of 42 consecutive days (6 weeks) when Atlantic salmon are not kept on site. Fallow periods are used to mitigate and minimise benthic impacts by having a period of time where there is no deposition of waste, which allows existing waste deposited to be more greatly dispersed and dissolved.
- 8.17.8. Priority Marine Features have been identified by the Scottish Government as marine nature conservation priorities. There are no marine designated sites in Loch Long. The closest marine designated site is the Upper Loch Fyne and Loch Goil Marine Protected Area (6.2km south of the marine area) which is designated for burrowed mud, flame shell beds, horse mussel beds and ocean quahog aggregations as well as sublittoral mid and mixed sediment communities. Overarching Policy 2 requires developments to protect and/or enhance sites and species designated at any level and Natural Environment Policy 5: Species and Habitats more specifically protects against development that would have an adverse impact on habitats or species identified in the National Park Biodiversity Action Plan (including habitats in the marine environment).
- 8.17.9. As above benthic surveys were undertaken in Loch Long. The surveys revealed that the seabed of Loch Long at the application site comprises of burrowed mud habitats, however no PMF habitats or species were found in abundance. NatureScot have advised that where present within the footprint of the proposed fish farm the burrowed mud habitat would be impacted, however this habitat is widespread and any effects arising would not be significant. Fireworks anemone were also identified but as the visual survey identified that they were in low numbers, again they conclude that any impact will not be significant. Ocean quahog PMF species is also present in the vicinity of the application site, however again given the low numbers identified NatureScot advise that the proposed development would not result in significant impacts on this species. It can therefore be concluded that there would be no adverse impacts on Priority Marine Features in compliance with Natural Environment Policy 5.
- 8.17.10. Overarching Policies 1 and 2 require developments to minimise adverse impacts on water quality and protect and/or enhance the water environment. Natural Environment Policy 11 requires developments to ensure no significant adverse impact on the water environment. The controls in place by the SEPA CAR authorisation mean that there would

not be a significant adverse effect on the benthos, Priority Marine Features or nutrient enhancement and these aspects of the water environment would be protected.

#### 8.18. Other Waste

- 8.18.1. Mortalities would be removed from the marine enclosures on a daily basis by an airlift system which involves a permanently installed pipe located in the deepest part of the net. Mortalities sink to this area and would be pumped to the surface and then either incinerated or ensiled on site. The fish silage would be stored on site and then regularly removed by a contractor. Marine Scotland Science advised that a Biosecurity Measures Plan, including details of mortality handling procedures, will be required to be agreed if planning permission is granted.
- 8.18.2. Overarching Policy 1 of the Local Development Plan requires developments to support the provision of waste reduction and waste hierarchy principles including prevention, reuse or recycling. The draft Environmental Management Plan details that equipment will be made from durable, sustainable and/or recyclable materials where possible and the applicant will implement a sustainability plan to ensure all general waste is suitably recycled and reused.
- 8.18.3. A Waste Management Plan and Biosecurity Measures Plan could be required by condition if the proposed development were to be approved.

#### 8.19. Trees and Woodland

- 8.19.1. When the planning application was submitted the terrestrial part of the application site was tree-covered. It falls within an area of Planted Woodland on Ancient Woodland Sites (PAWS) within Ardgartan Forest. The Ancient Woodland Inventory lists Ancient Woodland (both PAWS and native) adjacent to the proposed access track area.
- 8.19.2. The planning application details that in order to construct the proposed shore base, 1.2 hectares of the PAWS woodland would need to be felled as well as some areas around the proposed access track. Scottish Planning Policy sets out that woodland removal should only be permitted where it would achieve significant and clearly defined additional public benefits and, where woodland is removed in association with development; developers will generally be expected to provide compensatory planting.
- 8.19.3. The criteria for determining the acceptability of woodland removal and further information on the implementation of the policy is explained in the Scottish Government Control of Woodland Removal Policy. The policy states that there is a strong presumption “but with slightly more flexibility”

against removing Non-native Plantations on Ancient Woodland Sites (PAWS).

- 8.19.4. Even if woodland removal is judged to be acceptable, under the policy, compensatory planting is required and the area of compensatory planting must exceed the area of woodland removed to compensate for the loss of environmental value. The applicant has identified a 0.5 hectare area of land, 1.25km northeast of the proposed shore base which is currently a quarry, where they intend to carry out compensatory planting as part of the restoration of the quarry. Planting around the proposed shore base and proposed access road totalling approximately 1 hectare would bring the total proposed compensatory planting to 1.5 hectares.
- 8.19.5. The EIA Report chapter on Forestry includes a desk-based assessment only. The EIA report does not fully justify and provide evidence for woodland removal. The habitat survey report submitted provides some information the woodland habitats that were present including broadleaved woodland and conifer plantation woodland, however no assessment of the quality of the woodland was provided.
- 8.19.6. Since the planning application was submitted, felling has been undertaken by Forestry and Land Scotland (FLS) in advance of the proposed dates in the Land Management Plan. The terrestrial application site has been felled as well as areas of forestry adjacent, meaning that the majority of the application site is now cleared of tree cover, but ecologically is still woodland. The entire forestry coupe is to be felled by the end of 2022, with replanting expected to take place over 2023 and 2024. FLS were given permission to fell the woodland at the site, on the basis that there was no net loss of woodland with restocking proposed. Should planning permission be granted for the proposed development there would, however, be net loss of woodland (as the site would not be restocked) and the proposed development therefore requires to be assessed under the Control of Woodland Removal Policy.
- 8.19.7. Natural Environment Policy 8 of the LDP reflects Scottish Government policy and does not support proposals that would result in the loss or deterioration of an ancient or long-established plantation or semi-natural woodland unless there are overriding public benefits from the proposed development that outweigh the loss of the woodland habitat. The “public benefit assessment” is not entirely straightforward as the assessment of the potential public benefits associated with compensatory planting has to recognise that it may take many years to match those of the woodland being removed. Moreover, ancient woodland is effectively irreplaceable.
- 8.19.8. There are potential public benefits from the development of a fish farm, including employment and supply chain benefits. The applicant has not

provided justification for the proposed woodland removal, other than that it is required to enable the proposed development. Given the limited information provided by the applicant and the subsequent felling of the woodland at the application site, it has not been possible to fully assess the woodland removal. The proposal, as submitted, does not comply with the requirements of Natural Environment Policy 8 and the Scottish Government Control of Woodland Removal Policy.

8.19.9. The landscape implications of the woodland removal are discussed above in section 8.10.

## 8.20. Economic and Social Impacts

8.20.1. Economic Development Policy 2 provides support for development proposals for new businesses which support economic activity within the countryside, provided that proposals can demonstrate that there is reasonable justification why they cannot be located within Economic Development Sites and where the proposal:

- (a) Involves home-working or live-work units from an existing residential property, or
- (b) Is located within an identified Rural Activity Area or supports priorities identified within the Buchanan South or West Loch Lomondside Rural Development Frameworks, or
- (c) Utilises redundant structurally sound traditional buildings, or
- (d) Forms part of a building group where it can be demonstrated that there is a justification for the business to be located in a countryside location and there are no available sites within towns and villages, or
- (e) Redevelops land which has been identified as vacant or derelict within the associated land audit.

8.20.2 The proposed development would not meet any of the above criteria of Economic Development Policy 2, however weight can be given to the unique nature of the proposal and the requirement for a location within the countryside given the operational requirements of the business.

8.20.3 The National Park Partnership Plan aims to strengthen the rural economy through sustainable business growth and describes that there are opportunities for business growth and diversification including primary production of and support to the food and drink sector. It also aims to support a sustainable population by supporting access to training and jobs.

8.20.4 Scottish Salmon is the UK's largest food export by value and the aquaculture sector in Scotland provides an important contribution to the economy and supports rural economies. The National Marine Plan highlights that aquaculture contributes to sustainable economic growth in

rural and coastal communities. There would be both direct and indirect effects from the proposed development including employment, spend in the local area and supply chain impacts.

- 8.20.5 Overarching Policy 2 requires developments to provide training/jobs for local people. The applicant anticipates that during operation the marine fish farm would generate employment opportunities equivalent to 12 full-time employees. During construction it is anticipated that a temporary workforce averaging 20 people and peaking at around 40 people would be required and the applicant states that due consideration would be given to local contractors and suppliers. There would, however, be no guarantee that roles at the proposed farm would be filled by local people and due to the specialist nature of the equipment required it may not be possible to use local suppliers.
- 8.20.6 The applicant has advised of the intention to provide a local community benefit fund which would result in an annual payment to the local community. Whilst this is recognised as a potential benefit to the local community, this cannot be given any weight in decision making as this is not a material planning consideration.
- 8.20.7 The EIA Report identifies some potential positive impacts from the development on socio- economics, including employment, supply chain benefits and spend in the local economy, however the assessment concludes that these are all considered to be minor or negligible and not significant in terms of the EIA Regulations. The applicant also submitted an Economic Benefit Summary. This document outlines that the proposed development would have benefits for supply chain investment, employment, export and tax and industry leadership.
- 8.20.8 Whilst it is acknowledged that the proposed development would provide socio-economic benefits, these benefits would not be of such a scale that outweighs the landscape and visual impacts resulting in an adverse impact on the National Park's special landscape qualities and the impacts on the Endrick Water SAC, in relation to wild salmon.
- 8.21. Recreation and Tourism
- 8.21.1. The EIA Report identifies that the application site within the National Park, is of national importance to the UK, of very high recreational importance and a receptor of very high sensitivity. The EIA Report describes that the application site is within a relatively remote setting with recreation opportunity based around the natural environment. The Glasgow to Fort William (West Highland) Railway Line passes above Loch Long on the eastern side of the loch with views over Loch Long. The National Park Partnership Plan identifies that Arrochar is to be enhanced

as a marine water recreation hub with improvements to loch side infrastructure.

- 8.21.2. The application site is within Argyll Forest Park, an area of forest managed for multiple benefits with an emphasis on recreation. There are a number of recreational routes, including the Ardgartan and Loch Long Circular Walk, Loch Lomond and Cowal Way, Three Lochs Way, The Cobbler, the Lochgoilhead to Corran Lochan and the Glen Donich Circuit. There are outdoor education centres at both Ardmay near Arrochar and at Ardentinny. Loch Long is used for water-based recreation including sea kayaking, canoeing and diving. Passenger vessels travel through Loch Long (an average of 27 per year).
- 8.21.3. There are many tourism accommodation providers located within a close proximity of the application site including the Ardgartan Hotel and Forest Holidays lodges at Ardgartan. Ardgartan is described as a key gateway to the Argyll Forest Park in the Visitor Strategy for the Forest Park. The Ardgartan and Coilessan area is within the National Park camping management zone and includes a camping permit area. There is a Forestry Land Scotland car park at the entrance to Coilessan Glen which is used to access trails as well as Mark Cottage which is managed by the Mountain Bothy Association.
- 8.21.4. Natural Environment Policy 15: Coastal Marine Area provides support for development along the coastline where it is able to protect public access to and along the coast. The National Park Access Adviser commented that the proposed development has the potential for visual intrusion from the Arrochar Alps hill walking experience and that from a localised public access and recreation experience the proposed development has the potential to negatively impact on public access rights along the western shoreline of the Ardgartan peninsula and sea kayaking (and other forms of non-motorised water sport). The National Park Access Adviser has recommended mitigation measures including a public access/recreational access strategy to ensure that construction and operations do not prevent or compromise access rights or public recreational safety and an exclusion zone to access rights around the operational area of the fish farm and permanent signage on the marine enclosures to warn kayakers of this. The EIA Report commits to an Access Management Plan to establish the management or temporary diversions to routes and signage requirements. This could be adequately controlled by condition.
- 8.21.5. With regard to tourism and recreation, the EIA Report concludes that effects on all receptors are judged to be not significant. Aside from visual impacts, which have been addressed above, it is considered that there would be impacts on recreational users as a result of the presence of a fish farm within this highly sensitive area which would alter the

recreational experience and the current tranquillity of the area with the introduction of commercial activity in this undeveloped coastline.

- 8.21.6. The National Marine Plan includes objectives and policies for recreation and tourism, including that decision makers should support enhancement to the aesthetic qualities, coastal character and wildlife experience of Scotland's marine and coastal areas, to the mutual benefit of the natural environment, human quality of life and the recreation and tourism sectors. The National Marine Plan highlights that the quality of recreational experience relies on having a healthy, safe and high-quality environment and that it is important to ensure these qualities are maintained and enhanced when considering the impact of developments.
- 8.21.7. It is recognised that aquaculture can be of interest to visitors and that the new technology proposed may also encourage some visitors to the area, however the National Park contains a very small area of coastline that is unique in its character and value for both landscape and recreation. Many contributors highlighted concerns about impacts on both tourism and recreation and overall it is considered that the proposed development would adversely impact on the recreational experience and tourism.

#### 8.22. Transport and Accessibility

- 8.22.1. The proposed development includes road upgrades and new sections of access road to provide access to the shore base. Access would be taken from the A83 at Ardgartan visitors centre and car park via the existing forestry road to the site. Sections of the existing forestry road are proposed to be upgraded, widened and re-aligned and a new section of road is proposed, close to the shorebase with an existing hairpin re-positioned and a new hairpin constructed to allow HGV access to the site.
- 8.22.2. Electricity cable is proposed to be laid beneath the access track from the site to Coileissan car park and an overhead line is to be installed from Coileissan car park along a short section of track. 12 car parking spaces are proposed to be provided at the shore base and a turning area for HGV's.
- 8.22.3. Transport Policy 3 requires developments to minimise any adverse impact on traffic flows on the local and strategic road network and requires a transport assessment to assess the implications of development and requires developers to implement any measures identified in, or arising from the assessment which the National Park (in consultation with Transport Scotland and the Roads Authority) deem appropriate.
- 8.22.4. A transport assessment was submitted in support of the planning application which considers traffic during construction only. Operational



traffic has not been considered as part of the assessment, despite this being requested at EIA scoping stage.

- 8.22.5. Vehicular movements to the site would include heavy goods vehicles, light goods vehicles and cars. At the peak of construction, it is anticipated that there would be 59 two-way movements per day including HGV's and cars (including staff and delivery of construction materials and components). A total of 11,765 two-way vehicle movements are expected to occur during the 16 month construction period. The transport assessment concludes that any impacts would be minor and not significant.
- 8.22.6. Transport Scotland advised that they have no objections to the proposed development subject to the requirement for a Construction Traffic Management Plan to be submitted for approval prior to commencement of development.
- 8.22.7. Operational traffic is anticipated to include 12 staff cars plus supplier lorries accessing on a daily basis with an average of 3 HGV trips per day bringing in oxygen and feed and removing waste. Argyll and Bute Council Roads Authority have not provided detailed assessment or comments on the transport assessment provided and have stated that they have no objection to the proposed development.
- 8.22.8. As above, the transport assessment submitted does not take account of operational traffic and its potential impacts. The anticipated operational traffic of 12 staff cars plus an average of 3 HGV trips per day could have effects on the local road network, visitor experience and residential amenity. Nearby residents have raised concerns about an increase in traffic on the road. Argyll and Bute Council Roads Authority have, however advised that they have no objection to the proposed development.
- 8.22.9. In addition to operational road traffic there would be approximately 60 boat movements at the site per month (30 visits) during operation, delivering materials and resources. The activity and noise associated with these movements would impact on visitor experience and residential amenity.
- 8.22.10. Limited details have been provided of the proposed road upgrades and the extension to the existing forest road, with an additional hairpin providing access to the shore base. Transport Policy 3 requires development proposals to be of a design and specification that is sensitive to the special qualities of the National Park and it is not possible to fully assess this on the basis of the information provided. It has also not been possible to fully assess the potential landscape and visual

impacts of the proposed new road construction close to the shoreline, although as noted at paragraph 8.6.2 this could be significant.

### 8.23. Navigation

- 8.23.1. The application site is within an area which is used by the Ministry of Defence for exercise and training operations. Glen Douglas is a military (Royal Navy) munitions depot which uses Glen Mallan jetty, located to the south east of the application site, outwith the National Park. The Finnart Oil Terminal is located on the eastern shore of Loch Long to the south of the application site (outwith the National Park).
- 8.23.2. The EIA Report details that an average of 27 passenger ships pass through Loch Long per year as well as other commercial vessels including Search and Rescue. There are anchorage points within Loch Long including a jetty at Arrochar which offers recreational moorings.
- 8.23.3. The Northern Lighthouse Board have provided recommendations with regard to marker buoys and lighting (one lit yellow Special Mark Buoy at the eastern seaward mid-point of the cages, flashing every 12 seconds and high visibility mooring buoys to mark the feed pipes and power cables spaced at 10 metre intervals between the cages and the low water mark). The Northern Lighthouse Board recommend a weekly check of the sites marking equipment. The Queen's Harbour Master has advised that they have no objections to the proposed development. The MOD have no objections and no significant impact has been identified on navigation and naval exercise areas. A Marine Licence from Marine Scotland Licensing is required in relation to navigational aspects.
- 8.23.4. Chapter 17 of the EIA Report confirms that the recommendations of the Northern Lighthouse Board have been incorporated into the design of the development to ensure safeguarding of maritime navigation. There would therefore be no adverse impact on navigation as a result of the proposed development in compliance with part (c) of Natural Environment Policy 14.

### 8.24. Noise

- 8.24.1. Overarching Policy 2 requires developments to avoid any significant adverse impacts of noise. A Noise Impact Assessment was submitted as part of the EIA Report which considers noise impacts from road and water traffic, mechanical sources and construction and operational noise. Noise from the operation of the fish farm would include pumps providing feed and water to the marine enclosures, spray feeders, net washers, compressor for mortality removal, site boats, supply truck pumps, operation of a forklift and back-up generators. The Noise Impact

Assessment concludes that noise from construction of the terrestrial equipment, track improvement works and operation of the development would not be significant.

- 8.24.2. Argyll and Bute Council Environmental Health have advised that the Noise Impact Assessment has made a reasonable identification of sources of potential activities which could give rise to issues which could have a detrimental effect on local residents and has made a thorough and robust assessment of likely impacts and identified controls. Argyll and Bute Council Environmental Health advised that the specific recommendations of mitigation measures for the control of noise from the development during construction identified in 16.7 of the EIA Report should be employed in full.
- 8.24.3. In terms of operational noise, Argyll and Bute Council Environmental Health advised that a Noise Management Plan should be developed to identify best practical mean to control noise and vibration. This would include all aspects of the operation, from maintenance of equipment and acoustic shielding to reasonable hours of operation during noise generating procedures. This could be controlled through a planning condition requiring the submission and approval of a Noise Management Plan prior to development.

#### 8.25. Odour

- 8.25.1. Overarching Policy 2 requires developments to avoid any significant adverse impacts on air emissions/odour/fumes/dust. Sources of odour from fish farms include feed, waste, wastewater and mortalities. The EIA Report provides an assessment of potential odour impacts from the proposed development as a result of emissions from fish waste and waste management processes. The assessment concludes that odour effects of the development are predicted to be not significant and that embedded mitigation measures such as sealed waste collection and storage will ensure this is the case.
- 8.25.2. Argyll and Bute Council Environmental Health advised that the odour assessment has made reasonable identification of sources potential activities which could give rise to issues which could have a detrimental effect on local residents and has assessed their likely impact and identified controls which should be implemented to ensure any impact is reduced as far as reasonably practicable. The development would therefore comply with Overarching Policy 2 and would avoid any significant adverse impacts on odour.
- 8.25.3. In addition, to note SEPA regulates emissions from industrial processes such as fish farming under the Pollution Prevention and Control Regulations.

## 8.26. Lighting

- 8.26.1. Overarching Policy 2 requires developments to avoid any significant adverse impacts on light pollution. Light pollution can impact on amenity, the landscape and can have impacts on species and habitats.
- 8.26.2. Lighting will be required both at the shorebase and at the marine enclosures. At the shorebase office building security lighting is proposed and the yard area at the shorebase would be floodlit. The marine enclosures would have underwater lighting as well as navigational lighting. The Northern Lighthouse Board have provided recommendations for lighting of the marine equipment, including a lit buoy with lighting flashing every twelve seconds.
- 8.26.3. Argyll and Bute Council Environmental Health have recommended that all external lighting at the site complies with Scottish Government guidance on light pollution in order to protect the amenity of the area and reduce the nuisance due to light pollution.
- 8.26.4. The applicant proposes to develop a Lighting Management Plan to mitigate and manage lighting on site. As discussed in section 8.8 proposed lighting (both onshore and offshore) would have adverse landscape impacts.

## 8.27. Design and Zero Carbon Technology

- 8.27.1. The Design and Access Statement explains that a number of sites were considered for the location of the proposed fish farm and the site was chosen for a number of reasons including a suitable depth of water, shelter from waves, proximity to power supply and road access, the locational guidelines for fish farms, avoidance of environmental designations and isolation from any other fish farm developments. The Design and Access Statement also details the design process and considerations that influenced the final design.
- 8.27.2. Consideration has been given to disabled access requirements in the design of the shore base building as required by Overarching Policy 2, with an accessible toilet and accessible parking space.
- 8.27.3. Overarching Policy 2 requires developments to demonstrate how proposed buildings will meet a reduction in greenhouse gas emissions through minimising overall energy requirements through conservation measures and incorporating on-site low and zero carbon generating technologies to meet 20% of the buildings overall energy requirements. The applicant has committed to using solar panels on the main building at the shore base and electric vehicle charging points at the shore base. In

order to ensure that the requirements of Overarching Policy 2 are met, further information would be required to be submitted to demonstrate this via a planning condition if planning permission is granted.

#### 8.28. Archaeology

- 8.28.1. The shore base area of the application site includes the remains of a historic farmstead known as Dail. The remains comprise of multiple elements of degraded stonework and isolated structural ruins.
- 8.28.2. The EIA Report advises that the historic farm buildings at Dail would need to be removed to allow the shore base to be constructed (felling, site clearance and excavation). It is however advised that the buildings at Dail are not particularly well preserved and have been impacted by forestry growth, felling and management practices. WOSAS recommended that a programme of archaeological works are undertaken following the submission of a Written Scheme of Investigation (WSI) with regard to the historic farm buildings at Dail which would be lost as a result of the development.
- 8.28.3. Historic Environment Policy 7 sets out that archaeological resources will be expected to be retained, protected and preserved in-situ wherever feasible however where it can be demonstrated that this is not feasible, the developer will have to make provision for the archaeological excavation, recording and analysis of the resources.
- 8.28.4. The recommendations of WOSAS could be taken forward by way of a planning condition to ensure that archaeological excavation, recording and analysis is undertaken in accordance with Historic Environment Policy 7.

#### 8.29. Flood Risk

- 8.29.1. Part of the application site, including the shore base area and the water of Loch Long, are at high risk of coastal flooding (as classified on the SEPA Flood Map). Given the operational requirement for the proposed development to be located within and adjacent to Loch Long the development is considered a "Water Compatible Use" within SEPA's Land Use and Vulnerability Guidance. A Flood Risk Assessment (FRA) was submitted with the planning application. The FRA concludes that all sources of potential flood risk are demonstrated as negligible and the proposed development would not result in increased flood risk elsewhere.
- 8.29.2. A number of small watercourses flow through the application site towards Loch Long. It is proposed to install culverts in a number of locations, including at three watercourses which currently pass through the

application site. The fluvial flood risk from a number of nearby watercourses has been assessed as part of the FRA and is determined to be negligible.

- 8.29.3. SEPA confirmed that they have no flood risk concerns. Argyll and Bute Council Flood Authority advised that the FRA undertaken was generally acceptable and confirmed that they had no objections subject to a condition on the sizing of culverts.
- 8.29.4. The proposal would comply with Natural Environment Policy 13: Flood Risk as the location of the proposed development is outwith existing settlements and although in an area that has been identified as being at high flood risk, the site location is however essential for operational purposes and an FRA has been approved by the relevant authorities which demonstrates that the risk can be managed/mitigated.
- 8.29.5. The FRA submitted states that there would be no accommodation at the shore base, however the floorplans of the shore base building show an “overnight room” with two beds and an en-suite. Argyll and Bute Council Flood Authority have advised that this is acceptable given that the building would be outside of the 1:200 year coastal flood extent with appropriate finished floor levels. SEPA advised that essential ancillary sleeping accommodation or residential accommodation for staff required by water compatible uses is acceptable subject to a specific operational warning and evacuation plan being in place and deferred to Argyll and Bute Council as the Flood Authority. No such plan is in place but Argyll and Bute Council Flood Authority have advised that an operational warning and evacuation plan was not required due to the building being outside the 1 in 200 year flood extent with a finished floor level regarding flood risk and the building has road access route to higher ground.

## **Water Management**

### 8.30. Foul Drainage

- 8.30.1. A septic tank and soakaway would treat foul water from the terrestrial equipment at the shore base with water from the waste being discharged to Loch Long under a CAR authorisation granted by SEPA.

### 8.31. Surface Water

- 8.31.1. SUDS will be used to capture surface water drainage and run off at the shore base this would be in accordance with Natural Environment Policy 12 which requires developments to incorporate SUDS. Natural Environment Policy 12: Surface Water and Waste Water Management requires private wastewater treatment plants to be designed to meet SEPA’s requirements for authorisation. A CAR authorisation has already been granted by SEPA for a discharge to Loch Long. Water management

during construction could be controlled through a Construction Environment Management Plan. A draft of which has been provided in support of the planning application.

#### 8.32. Water Supply

- 8.32.1. The water supply at the site will be a private water supply sourced from a local stream or a borehole. Scottish Water have advised that they have no objection to the proposed development. Natural Environment Policy 12 supports private water supplies when a public water supply system is not available and when there is no adverse effect on the water environment or the lawful interests of other land and water users in line with SEPA requirements. A private water supply risk assessment was included in the EIA Report which concludes that the significance of effect of the development on private water supplies is of minor significance.
- 8.32.2. Procedures for monitoring of private water supplies during construction and operation to ensure no adverse impacts have been outlined by the applicant. In addition, a draft Construction Environment Management Plan was submitted as part of the planning application, this identifies mitigation measures for water management during construction. SEPA have advised that the water supply would likely be regulated under General Binding Rules.

#### 8.33. Culverts

- 8.33.1. Three new culverts are proposed as well as the upgrade/replacement of other culverts along the length of the access track. Natural Environment Policy 11: Protecting the Water Environment requires developments to ensure no significant adverse impact on the water environment and has a presumption in favour of soft engineering techniques and against the culverting of watercourses, unless there is no suitable alternative. The policy specifies that proposals for culverting for land gain may only be justified if the applicant can demonstrate that no other practical option exists that would allow the watercourse to remain open and the proposed development is of overriding public interest. It is understood that the additional hairpin proposed and the track upgrades are required for the types of vehicles that will be required to access the site, including HGV's.
- 8.33.2. Argyll Fisheries Trust raised concerns with regard to the proposed culverts as they believe that the culverts may impede the passage of fish using water courses such as Coilessan Water. The Trust advised that a full survey of the proposed access route should be undertaken prior to works commencing and culverts installed should be "fish friendly". The construction of the proposed culverts could be adequately managed by planning conditions to ensure that the relevant surveys and mitigation measures were in place to ensure no significant adverse impact on the water environment in accordance with Natural Environment Policy 11.

## European Protected Species

8.34. A Protected Species survey and Phase 1 Habitat Survey were undertaken. Evidence of red squirrel and otter were found and suitable habitats for other protected species such as pine marten was found. Proposed mitigation measures are detailed within the EIA Report including further Protected Species surveys being undertaken prior to works commencing on site. This would inform any requirements for a Species Protection Plan.

### 8.35. Bats

8.35.1. Bats were not surveyed for as the plantation was predominantly coniferous. However, there are broadleaved trees along the shore and water courses where the onshore buildings and parking areas are proposed. If any broadleaved trees are to be removed it will be necessary to carry out a bat roost potential survey and if any potential bat roosts are recorded, a bat emergent survey. As FLS have felled the woodland on the application site, it is their responsibility to undertake a bat roost potential survey prior to the works starting.

### 8.36. Otters

8.36.1. A survey was undertaken of all suitable water courses were surveyed and a 200m buffer zone of suitable habitat adhering to NatureScot guidance. An otter spraint was recorded on the shoreline where the terrestrial development is proposed. There was no evidence of lying up areas so a licence is not required for works in this area. However, as there is evidence of otter an otter protection plan should be included in the FEMP. Additionally, evidence of otters was recorded by Forest and Land Scotland as part of their ecological assessment for the tree felling in this area. No holts were recorded. However, a pre-construction survey will be required for otters to ensure there are no lying up areas. This survey should be submitted to the National Park Authority for approval prior to any clearance works taking place should consent be granted.

### 8.37. Seals

8.37.1. A 2017 field study by Sea Mammal Research Unit and Marine Scotland has stated that Loch Long has low density for harbour seals and an absence of grey seals. A baseline study was undertaken using various datasets. There are records of seals in the area but no haul out areas at the proposed fish farm location. The closest designated seal haul out area is at Ailsa Craig. Anecdotal evidence, however, has recorded the presence of seals at Loch Long. Many individuals who submitted representations to the application described sightings of seals in the area. Therefore, in order to ensure that the proposed development would not have an adverse impact on seals, a species protection plan should be



included within the FEMP. (See also section 8.15 which discusses predator interactions in relation to seals).

### **Other Protected Species**

#### **8.38. Red Squirrel**

8.38.1. Evidence of red squirrels was found and one drey was recorded. It is recommended that a red squirrel protection plan, (taking into account red squirrel breeding times) is included in the CEMP.

#### **8.39. Birds**

8.39.1. The protection of marine birds is discussed earlier. If trees are to be removed during the bird breeding season (March- August) it will be necessary to ensure that there are no nesting birds within the tree cover or ground nesting birds. This applies to all areas to be cleared for development including any areas cleared for the proposed new road.

8.39.2. Therefore, should permission be granted a condition would be required to ensure that no works take place during the bird breeding season unless a survey has been undertaken for nesting birds.

#### **8.40. Badger**

8.40.1. Badger setts were recorded approximately 0.6km from the proposed shore base location as part of the assessment for tree removal by Forest and Land Scotland. Should consent be granted for the proposed development a condition should be applied, to ensure that a badger survey is undertaken prior to any development works taking place. This would be used to inform a protection plan to be included in the FEMP.

8.40.2. With suitable mitigation measures in place, there would be no adverse impacts on terrestrial protected species in accordance with Natural Environment Policy 4.

Loch Lomond Woods SAC (qualifying interests: otter and western acidic oak woodland). At 3.5km from the development footprint this was scoped out from the requirement to undertake a HRA.

### **Further info submitted by applicant**

8.41. The applicant submitted a letter on 10 June 2022 outlining additional points to note and to take into consideration as part of the determination of the application.

They:

- Believe that the development aligns with the Park's ambitions of playing a crucial role in tackling the twin challenges of the Climate Emergency and the Nature Crisis;

- Believe the proposal is a game changing project for the sector and of national significance for Scotland;
- Contend that the project has considerable support from national policy and fully accords with the Local Development Plan
- State that the Local Development Plan is out of date and that the presumption in favour of development that contributes to sustainable development is a significant material consideration;
- Highlight the support received from Arrochar, Tarbet and Ardlui Community Council and from other members of the community;
- Propose a time-limited consent for a period of 20 years to demonstrate the farming method;
- Suggest possible conditions to be attached to any planning permission granted
- Highlight the separate regulation by SEPA for the CAR authorisation and Marine Scotland for the Aquaculture Production Business Licence
- Submit revised plans showing a reduction in the height of the oxygen tanks;
- Note that trees would be planted around the proposed road and shore base;
- Propose monitoring of and removal of plastic waste from Arrochar beaches to be built into the Environmental Monitoring Programme;
- Propose planning obligations including enhancement to the Three Loch's Way footpath;
- Propose phased approach to farming operations to demonstrate the technology at a lower biomass before increasing to full production (farm a maximum of 2,300 tonnes for the first two years before increasing to full capacity of 3,452 tonnes) meaning that 3 enclosures would be used for the first four years (2 years of construction and 2 years of operations);
- Stage the maximum stocking density for the first two years the maximum stocking density would be 32kg/m<sup>3</sup>.

8.42. With regard to the letter submitted by the applicant, many of the measures proposed, whilst commendable, cannot be taken into consideration, such as proposals for litter clearance, path upgrades and monetary donations to the local community.

8.43. The National Park Authority does not agree with the applicant's statements that the proposal aligns with the National Park's ambitions of playing a crucial role in tackling the climate emergency and the nature crisis. The draft NPF4 states that in order to achieve a net zero, nature-positive Scotland, we must "rebalance the planning system so that climate change and nature recovery "are the primary guiding principles for all our plans and all our decisions". Whilst NPF4 is currently in draft format and not yet a material planning consideration, this is the current context within which planning decisions are made. The fragile state of the precious nature of the National Park, including the marine environment and wild fish populations, is recognised and the National Park's "Future Nature" objectives are to go further than protecting habitats and species by reversing decline and

restoring nature. The risk to wild salmonid populations from the proposed development does not align with these objectives.

- 8.44. The National Park Authority recognises and agrees that this proposal is significant for the sector and of national significance in Scotland, however the proposal must be considered against the development plan and all other material considerations. The proposal does not fully accord with the Local Development Plan and therefore cannot be supported.
- 8.45. With regard to the applicant's statement that the Local Development Plan is "out of date", the Local Development Plan covers 2017-2026, and it includes a twenty year vision and remains in alignment with Scottish Planning Policy. Based on the changes proposed by the Planning Act 2019 and timescales to implement these, as well as the impact of the COVID-19 pandemic, we have reviewed the timescales to prepare a new LDP to ensure that the new Plan aligns with the national planning strategy and guidance within the next National Planning Framework 4 and new Scottish Planning Policy. The National Park Authority does not believe that the proposed development would contribute to sustainable development.
- 8.46. It is recognised that there is support from Arrochar, Tarbet and Ardlui Community Council and a body of support from other organisations and individuals. However, there is also a body of concern, highlighted risk and objection and the support does not outweigh all other material considerations.
- 8.47. The applicant has proposed a time limited consent of 20 years to demonstrate the proposed farming method. Twenty years is not considered to be temporary and would not reduce the landscape impacts or adverse effects on wild fish identified.
- 8.48. With regard to the applicant's proposed phased approach to farming operations, Marine Scotland Science have welcomed this approach but have advised that as the lower biomass would be held in fewer enclosures the stocking density would not change and therefore the approach does not influence Marine Scotland Science's previous comments.

### **National Park Aims**

- 8.49. Whether the proposed development collectively contributes to the National Park aims is a material consideration as set out in Overarching Policy 1. The National Parks (Scotland) Act 2000 states that if it appears to the National Park Authority that there is a conflict between the first aim, and the other National Park aims, greater weight must be given to the conservation and enhancement of the natural and cultural heritage of the area.
- 8.50. **Aim 1: To conserve and enhance the natural and cultural heritage of the area**

#### 8.51. Natural Heritage

Loch Long is a unique fiord-like feature, a striking part of the coastal marine area of the National Park. There are no fish farms or similar structures within the National Park Area of the loch. The total area of the development will be dominant in this part of Loch Long, which is one of its narrowest stretches. The proposal would be of an industrial character, resulting in new structures of a notable scale on an area of coastline which is largely undeveloped and is remote in character. It would not be sympathetic to the Loch's landscape. Visual impacts would be significant from key recreational routes, from some of the higher hills in the area, the A814 and also from boat and recreational loch users. The landscape would not be conserved or enhanced by the development.

8.52. The coastal marine area of Loch Long, along with Loch Goil includes a number of important species or habitats. The most significant consideration in terms of this proposal, concerns migratory wild fish species such as salmon and sea trout. These species, which are in decline and at risk, are present in Loch Long, Loch Lomond and the rivers which flow into them. It is clear that salmon farming can present a risk to native migratory fish and this is a subject of much research and debate in Scotland. Risks include from sea lice, disease and interbreeding of escaped farmed fish with local wild fish.

8.53. There are several local salmon and trout rivers in the Argyll area that flow into Loch Long which are considered to be in a fragile condition in terms of their salmon population. Grade 3 under the Conservation of Salmon (Scotland) Regulations 2016. This means they do not have a sustainable population and management is required (catch and release only).

8.54. The Endrick Water Special Area of Conservation (the Endrick Water flows into Loch Lomond south of Balmaha) is designated for lamprey and salmon. The proposal is situated approximately 20km north of the likely migration route of salmon between the Endrick Water via Loch Lomond and the River Leven into the wider Firth of Clyde.

8.55. It is recognised that the industry has established management and mitigation techniques to minimise risk which are secured through the regulation by SEPA and Marine Scotland. There remains a risk however. There is a documented fish farm escape event in 2020 from a farm near Carradale in Argyll, which led to farmed fish reaching the River Leven and the Endrick Water. While the proposal is for a new 'closed' technology which it is stated will reduce the risks beyond current 'open' farming methods, it is not possible to conclude that this will ensure there will be no risk. The technology is also unproven in Scotland though is established in Norway. There are currently no fish farms in Loch Long, with the closest fish farm in Loch Striven further south and west of Loch Long. The locational need for the proposal to be in Loch Long is not accepted. It is concluded that while the risk

should be low, the potential of further negative impacts on already fragile native fish is a risk that can not be accepted, in an area designated, where a precautionary approach if in any doubt is particularly important.

8.56. The proposal does not therefore meet the first aim as the development would neither conserve nor enhance the natural heritage of the area with specific reference to native fish stocks and the landscape character and visual amenity of the National Park.

8.57. Cultural Heritage

The development is not considered to have any adverse impacts on the cultural heritage of the area. It is recognised that the cultural heritage of the landscapes of the National Park are recognised more broadly to be of interest, from gaelic place names to historical events. Greater weight should be placed on the broader value of the landscape along with the outdoor recreational qualities that this adds the experience of the area.

8.58. **Aim Two: To promote sustainable use of the natural resources of the area**

8.59. The proposed development would involve the use of the waters of Loch Long to farm fish at a commercial scale. It would have impacts on the habitats and species that rely on the marine environment. The associated shore base would result in tree felling, including on Ancient Woodland Sites and potentially on an area in the Ancient Woodland Inventory. The felling of these areas in connection with development should only be approved if there are overriding public benefits that outweigh the loss. While the tree felling has already been undertaken by the landowner as part of their management of the woodland, which means the majority of the land in the application site has been cleared, this is still in ecological terms, woodland. Considering the conclusion of the assessment above in relation to Natural Heritage, in particular the ability to sustain healthy native fish stocks, it is considered the proposal would negatively impact on the National Parks natural resources and would not support this aim.

8.60. **Aim Three: To promote the understanding and enjoyment (including enjoyment in the form of recreation) of the special qualities of the area by the public**

8.61. As an industrial type of development with its associated structures, equipment, services and facilities it is not intended to contribute to the understanding and enjoyment of the special qualities specifically.

8.62. Whilst the new technology proposed may attract visitors and could provide learning and education opportunities, the presence of a fish farm could deter some recreational users of the Loch or the paths in the area.

- 8.63. The quality of the recreational experience for users of the area is likely to be significantly diminished by the construction and operation of a fish farm. The proposed development is at odd's with the area's high scenic value and the encouragement of a sustainable tourism industry due to the impacts on the landscape which is intrinsic to the visitor experience.
- 8.64. It is concluded that this development will not support this aim.
- 8.65. **Aim Four: To promote the sustainable economic and social development of the area's communities**
- 8.66. It is recognised that the proposed development would contribute to economic development in the area, through the provision of direct employment and further economic benefit in the supply chains during construction and operation. This would bring a new type of business into the National Park, which would bring with it a broadening of the industry and economic development activity in this area.
- 8.67. There are, however, questions over the level of contribution given the relatively low number of jobs to be created, how much of the benefit would be realised locally and the level of risk associated with the development of the proposal which could in turn affect existing or potential tourism that relies on the high quality natural heritage and the experience it provides. For example, there has been a long-term ambition to see more regular water transport for visitors in Loch Long to re-establish historical connections from Glasgow to Arrochar. Indeed, the Waverly made it's first visit to Arrochar for many years during this past summer as part of its 75th anniversary year which demonstrates an interest remains.
- 8.68. Financial contributions made to the local community are not a planning consideration and cannot be taken into account. The potential wider benefits of the proposal are acknowledged, recognising that as a demonstration of an application of new technology for fish farming it has the potential to bring benefits if the applicant's claims were realised. The assessment against the aims must however focus on the National Park. Overall, therefore, the contribution to the fourth aim would not be significant.
- 8.69. As above, the National Parks (Scotland) Act 2000 states that the general purpose of a National Park Authority is to ensure that the National Park aims are collectively achieved. If it appears to the authority that there is a conflict between the first National Park aim and other National Park aims, the authority must give greater weight to the first aim (this is known as the "Sandford Principle"). Having regard to the above, it can reasonably be concluded that the proposal is contrary to the first, second and third aims and there is a conflict between the first and fourth aims. Therefore, in accordance with The National Parks (Scotland) Act 2000 greater weight must be given to the first aim. This is a material consideration that weighs heavily against the proposed development.

## 9. Conclusion

- 9.1. In conclusion, it is considered that this proposal does not comply with the relevant policies of the Local Development Plan, and there are no material planning considerations which would justify a departure from the Local Development Plan.
- 9.2. There is a careful balance to strike in considering new development in the National Park, to ensure this sensitive area is protected and enhanced while also supporting the social and economic wellbeing of the area. As above, the proposal would be contrary to the National Park aims and greater weight must be given to the first aim of conserving and enhancing the natural and cultural heritage of the area.
- 9.3. The proposed development would have an industrial appearance and would erode many distinctive characteristics and qualities of the surrounding seascape/landscape and consequently, the strategic importance of the largely undeveloped gateway into the National Park would be compromised. Loch Long is without a doubt an iconic, accessible, fjord like Loch.
- 9.4. Part of the landscape character of the area are the forest and woodlands on the steep sided slopes of the Loch. The proposal will result in tree felling at the shore base and access road and insufficient information has been provided to justify a permanent loss of ancient woodland. An overriding public interest, required in respect of this loss, has not been established.
- 9.5. It is accepted that the salmon farming industry in Scotland is working toward the development of alternative technologies and research to lessen the environmental impacts, development and trials of new technology are supported by the Scottish Government and as such, national policy. Indeed, the potential benefits of the proposed technology are also accepted. However, the applicant contends that this proposal is not a trial and that the technology proposed is proven. This is reflected in the scale of the proposal which is significant and the applicant states it would be the largest fish farm in Scotland.
- 9.6. There has been support from some contributors for the proposal and one of the Community Councils that the proposal is close to, noting the economic benefits for the area including new employment. Equally, there are objections from contributors. Numerous consultees and contributors highlight that this technology has not been used in Scotland and is not proven in a Scottish context. Wild fisheries organisations consider in general that while the new technology is a positive step for the industry, the majority are opposed to its use at this site. Key reasons are that it would be better to trial on an existing site rather than a location, and a Loch, that has not had any fish farms. It would be better to trial at an existing location where the baseline interactions or impacts from fish farming are better known.

- 9.7. In reviewing the consultation responses from statutory consultees, it is clear that there is an inherent risk highlighted. SEPA, NatureScot and Marine Scotland Science highlight mitigation, monitoring or management requirements. Impact on salmonid or sea trout, from either interacting with any escaped farmed fish or sea lice are particular issues identified. After careful consideration, officers have concluded that there is not a body of sound evidence on which to rely to make a decision on this new technology. The National Park's native migratory fish stocks are already in decline and it is too great a risk to accept that mitigation, monitoring or management alone can provide certainty of no risk. As the decision-making body for this planning application, it is for the National Park Authority to come to its own view after reviewing all the information submitted by the applicant, those for and against the applicant along with expert advice from consultees and the Authority's own advisors.
- 9.8. The scale of the proposal is significant and a risk-based approach is required. This application is contrary to the policies of the Local Development Plan, the statutory aims of the National Park and it is concluded that a precautionary approach must therefore be taken considering all the potential merits of the application. This is in accordance with the policies of the Scottish Planning Policy and the National Marine Plan, as particular material considerations, due to the harm to the National Park landscape, ancient woodland and the risk to the water environment and species of international importance.
- 9.9. It is therefore recommended that members:  
**REFUSE** the application for the reasons contained in **Appendix 1**.



## Appendix 1: Reasons for Refusal

The proposed development would not comply with Overarching Policy 1, Overarching Policy 2 or Natural Environment Policy 1 of the Local Development Plan as it would not relate well to the landscape context and setting and would not be sympathetic to local built forms. The development would have an industrial appearance in an area of undeveloped coastline. The development would not safeguard visual amenity and important views and would not protect or enhance the rich landscape character of the National Park. The development would adversely impact the special landscape qualities for which the National Park has been designated.

The proposed development would not comply with Natural Environment Policy 15: Coastal Marine Area of the Local Development Plan as it would not be in alignment with the National Marine Plan policies and objectives. Specifically, the development would not be in alignment with National Marine Plan Aquaculture Policy 5 that aquaculture developments should avoid and/or mitigate adverse impacts on the seascape, landscape and visual amenity of an area and Objective 2 for Wild Salmon and Diadromous Fish to maintain healthy salmon and diadromous fish stocks.

The proposed development, following a Habitats Regulations Appraisal/appropriate assessment under the Conservation (Natural Habitats, &c.) Regulations 1994, in relation to the Endrick Water SAC (set out in Appendix 2 of this report) would have an adverse effect on the integrity of the Endrick Water SAC, designated for Atlantic salmon and lamprey. The technology proposed has not been trialled in Scotland and there are inherent risks from an escape incident to wild salmon populations which are already fragile. The terms of Appendix 2 of this report (in relation to the Endrick Water SAC) are adopted and it is also considered that the proposed development is contrary to Natural Environment Policy 2 (which repeats the provisions regulations 48 and 49 of the Habitats Regulations 1994) as the derogation tests set out in paragraphs (a) “there are no alternatives and” (b) “there are imperative reasons of overriding public interest” of that policy cannot be met by the proposed development.

It has not been possible to assess the impacts of the proposed woodland removal and compensatory planting as insufficient information has been provided by the applicant. The information provided is insufficient to meet the requirements of the Scottish Government Control of Woodland Removal Policy and the loss of woodland does not meet the test in Natural Environment Policy 8 of the Local Development Plan.

The proposed development would be contrary to the first, second and third statutory aims of The National Park (as set out in section 1 of The National Parks (Scotland) Act 2000). The National Park Authority must, in its determination of the application, give greater weight to the first aim “to conserve and enhance the natural and cultural heritage of the area” as it is in conflict with the fourth aim.

## Appendix 2: Habitats Regulations Appraisal



### HABITATS REGULATIONS APPRAISAL

Report to inform an Appropriate Assessment to be undertaken by the National Park Authority

in respect of the effects of

Planning Application 2021/0357/DET

Installation of a marine fish farm and associated development including shore base, slipway and pontoon and upgrade.

On the Endrick Water (SAC)

## Requirements of the Habitats Regulations

European Sites are **Special Areas of Conservation (SACs)** designated under the EC Habitats Directive to protect particular habitats and non-bird species and **Special Protection Areas (SPAs)** designated under the EC Birds Directive to protect wild birds.

Environmental protection to SACs and SPAs is addressed in Scotland through the *Conservation (Natural Habitats &c) Regulations 1994 (as amended)*, -including amendments to address Brexit) which is known as the “Habitats Regulations”.

SPAs and SACs provide a network of core breeding and resting sites for rare and threatened species and some rare natural habitats which are protected in their own right.

The Endrick Water SAC is designated due to the presence of important populations of brook lamprey, river lamprey and Atlantic salmon.

There have been some amendments to the Habitat Regulations to address the UK’s withdrawal from the EU but these have not reduced the high level of protection given by them.

The Habitats Regulations require that:

**Where an authority concludes that a development proposal is likely to have a significant effect on a European site (SPA or SAC), it must undertake an appropriate assessment of its implications for the European site in view of the site’s conservation objectives.**

The need for appropriate assessment extends to projects outwith the boundary of the SAC or SPA, in order to determine their implications for the interest protected within the site.

### Significance Test

Regulation 48(1) of the Habitats Regulations requires the “competent authority” (in this case the National Park Authority) to first carry out a ‘significance test’. The test for significant effects acts simply as a precautionary filter to exclude any projects which have no possible connection to the conservation interests of the SAC or SPA. This will result in the exclusion of cases where there is clearly no risk of an adverse effect.

Under Regulation 48 of the Habitats Regulations, the LLTNPA, as a competent authority, has a duty to:

- Determine whether or not the proposal is directly connected with or necessary to SAC/SPA management for conservation; and, if not;
- determine whether the proposal is likely to have a **significant effect** on the SAC/SPA either individually or in combination with any other plans or projects;
- If required, seek information from the applicant to enable the appropriate assessment to be undertaken;
- Consult with NatureScot and have regard to any representations they may make.
- If they consider it appropriate take the opinion of the general public.

- Make an **appropriate assessment** of the implications (of the proposal) for the SAC/SPA in view of that site's conservation objectives.
- In the light of the above and subject to regulation 49 the competent authority shall agree to the development only after having ascertained that it will not adversely affect the integrity of the SPA or SAC.
- In undertaking an appropriate assessment have regard to the manner in which a development is to be undertaken and any mitigation that can be imposed.

The first bullet should only be accepted where it is part of a fully assessed, and agreed, conservation management programme. This does not apply in the present case.

If the proposed development is not directly connected with or necessary to site conservation management, the competent authority must determine whether the proposal is likely to have a significant effect on a SPA or SAC. The decision on whether an appropriate assessment is necessary should be made on a precautionary basis.

An appropriate assessment is required where there is a probability or a risk that the plan or project will have significant effects on a site. This is in line with the ruling of the European Court of Justice in Case C-127/02 (the Waddenzee Judgment) which stated:-

*“any plan or project not directly connected with or necessary to the management of the site is to be subject to an appropriate assessment of its implications for the site in view of the site’s conservation objectives if it cannot be excluded, on the basis of objective information, that it will have a significant effect on that site, either individually or in combination with other plans or projects”*

In Sweetman and others v An Bord Pleanála (Case C-258/11) it was stated:-

*“In order to establish whether a plan or project to which article 6(3) of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora applies has an adverse effect on the integrity of a site, it is necessary to determine whether that plan or project will have a negative effect on the constitutive elements of the site concerned, having regard to the reasons for which the site was designated and their associated conservation objectives. An effect which is permanent or long lasting must be regarded as an adverse one. In reaching such a determination, the precautionary principle will apply.”*

We have adopted the reasoning in these cases for our assessment.

### **Appropriate Assessment**

Habitats Regulation 48 (5) requires that *“in the light of the conclusions of the assessment, the authority shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site”*, in relation to its conservation objectives.

It is important to note that arriving at this conclusion requires being certain beyond reasonable scientific doubt.

CJEU Waddenzee case (C-127/02):

*“Therefore, pursuant to Article 6(3) of the Habitats Directive, the competent national authorities, taking account of the conclusions of the appropriate assessment of the implications of mechanical cockle fishing for the site concerned, in the light of the site's conservation objectives, are to authorise such activity only if they have made certain that it*

*will not adversely affect the integrity of that site. That is the case where no reasonable scientific doubt remains as to the absence of such effects (see, by analogy, Case C-236/01 Monsanto Agricoltura Italia and Others [2003] ECR I-8105, paragraphs 106 and 113).*

Habitats Regulation 48 (6) requires that

*“In considering whether a plan or project will adversely affect the integrity of the site, the authority shall have regard to the manner in which it is proposed to be carried out or to any conditions or restrictions subject to which they propose that the consent, permission or other authorisation should be given”*

## **Agency Role**

In undertaking the Appropriate Assessment, the Habitats Regulations require the National Park Authority as competent authority to have regard to the advice received from Nature Scot. The National Park Authority can also have regard where relevant to the opinions of other bodies where these are material. However, the responsibility for undertaking the Appropriate Assessment rests with the National Park Authority as competent authority and it is not bound to follow the advice of Nature Scot. This Appropriate Assessment has been prepared by the Natural Heritage Planning Advisor so is an officer's recommendation. The National Park Authority must act fairly and rationally and for proper lawful purposes and if it does not follow Nature Scot's advice, provide reasons for not following Nature Scot's advice.

## Background Information on the Endrick Water Special Area of Conservation.

<b>Name of European Site</b> : Endrick Water	
<b>Site Type</b> : Special Area of Conservation (SAC)	
<b>Qualifying Interests:</b>	
SCIENTIFIC NAME	COMMON NAME
<i>Salmo salar</i>	Atlantic salmon
<i>Lampetra planeri</i>	Brook lamprey
<i>Lampetra fluviatilis</i>	River lamprey
<b>Conservation Objectives</b>	
<p>To avoid deterioration of the habitats of the qualifying species (listed above) or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained and the site makes an appropriate contribution to achieving favourable conservation status for each of the qualifying features;and</p> <p>To ensure for the qualifying species that the following are maintained in the long term:</p> <ul style="list-style-type: none"> <li>• Population of the species, including range of genetic types of salmon, as a viable component of the site</li> <li>• Distribution of the species within site</li> <li>• Distribution and extent of habitats supporting the species</li> <li>• Structure, function and supporting processes of habitats supporting the species</li> <li>• No significant disturbance of the species</li> </ul>	

## Description of proposal

The 2021/0357/DET application consists of the construction and operation of a semi-closed fish farm at Beinn Reithe near Arrochar. It includes marine farm components, shore base components and road upgrades.

### **The Marine components are:**

- Marine enclosure;
- Harvesting facility;
- The mooring system;
- The floating pontoon;
- The floating umbilical; and
- The marine lighting.

### **The terrestrial components are:-**

- The office building;
- The oxygen vessels;
- The slipway;
- The waste water treatment plant;
- The mortality handling station;
- The existing access track;
- The new access track and
- The grid connection.

The marine component will consist of 4 circular shaped semi-closed containment farming enclosures with a maximum diameter of 50m and a square shaped semi-closed harvesting facility, a mooring system, floating feed, oxygen and waste water pipe to supply the marine farm (floating umbilical) and a back-up umbilical as well as under water and navigational lighting.

The semi- closed system is designed to prevent sea lice entering the farmed environment by providing a physical environment around each farming enclosure that is impermeable to infective planktonic sea lice. This design has not been used in Scotland before but has been used in Norway for several years. Fisheries Management Scotland the representative body for District Salmon Fisheries Boards and Trusts across Scotland has expressed concern that the technology has not been tested in Scotland. A trial in Canada on semi-closed fish farms has been suspended due to water quality issues but further information on this is not available.

Each semi-closed enclosure will be suspended from a near circular 2m wide surface float collar which sits 1.5 -2m above the water line. A marine fabric impermeable bag will hang from the float collar to prevent surface water entering the farming enclosure. A second mesh bag provides an additional barrier reducing risk of escapees.

Water is pumped drawing water from 20m deep to go through the Marine Farming Enclosure. Waste water is pumped ashore for disposal, from the bottom of the containers, water also leaves the enclosures through a series of ports.

The development of a semi-closed fish farm is designed to prevent sealice growing (rather than requiring treatment) due to an impermeable barrier between the marine and farmed environment and is designed to capture more than 85% of the faeces and uneaten food. Waste is pumped ashore for disposal from the bottom of the containers.

Feed will be stored on land in a silo. A draft Farm and Environmental Management Plan has been produced which includes regular monitoring of the equipment and includes a contingency plan should sea lice be recorded in any of the enclosures. A draft Wild Fish Monitoring Plan is being produced with Argyll Fisheries Trust and Marine Scotland and an Escape Response Plan must be produced to comply with Marine Scotland Guidance.

The slipway is for the purpose of launching and recovering watercraft and is located 25m from the floating pontoon to prevent interaction with the floating umbilical.

## **Significance Test for Planning Application 2021/0357/DET Qualifying Features of the SAC**

As listed above, the Qualifying Interests for the Endrick Water SAC are:-

- Atlantic salmon (*Salmo salar*);
- Brook lamprey (*Lampetra planeri*) and
- River lamprey (*Lampetra fluviatilis*)

The Conservation Objectives for the Endrick Water SAC are detailed in the background information above.

### **Significance Test**

The proposal is located approximately 3 kilometres (3km) east of Beinn Reithe adjacent to the western bank of the upper reaches of Loch Long. The proposed fish farm will consist of a semi-closed containment system. There are no existing semi-closed containment fish farms in Scotland. Loch Long connects to the Firth of Clyde 18km from the Marine area.

It includes marine farm components, shore base components and road upgrades.

The terrestrial components of the development will be situated on land leased from Forest and Land Scotland (FLS), in the Ardgartan Peninsula block within the Cowal and Trossachs Forest District. This element of the development has been screened out as not having likely significant effect on the SAC.

The marine components however are situated on Loch Long and could affect the Endrick Water SAC. There could be significant effects from sea lice interacting with wild Atlantic Salmon, farmed fish escape and food and faeces entering the water. There could also be sediment entering Loch Long during construction. Although the development (and loch) is outwith the boundary of the SAC, adult salmon and river lamprey pass through the loch to spawn in fresh water. Brook lamprey do not migrate to sea.

As a consequence, the proposal is likely to have a significant likely effect on the qualifying interests of the SAC and an appropriate assessment is required.



## Appropriate Assessment for Planning Application 2021/0357/DET Qualifying Features of the SAC

<p><b>Elements of project likely to give rise to significant effects on the site.</b></p>	<p>As highlighted above, although the development is outwith the Endrick Water SAC, the proposal is situated within Loch Long approximately 20km north of the likely migration route of post-smolts emigrating from the SAC in the wider Firth of Clyde.</p> <p><b>Construction</b></p> <ul style="list-style-type: none"> <li>• There is potential for pollution from the construction of the development (eg silt, polluted water, construction vehicle fuels).</li> </ul> <p><b>Operation</b></p> <ul style="list-style-type: none"> <li>• During operation there is the potential for sea lice developing around the fish farm resulting in potential interaction with wild Atlantic salmon. This could occur from inadequate monitoring and/or equipment malfunction.</li> <li>• Fish waste and surplus food could enter the loch as a result of failure of the sump at the bottom of the semi-closed system to remove debris, the floating umbilical conveying the debris to land could be damaged, and/or the semi-closed containment containers could be damaged.</li> <li>• There could be an escape of farmed fish resulting in inter-action with wild salmon ie genetic introgression as a result of equipment malfunction or damage.</li> <li>• Storm damage could result in fish and sea lice escaping.</li> <li>• There could be predator damage to the equipment.</li> <li>• Saboteur damage to the equipment.</li> <li>• Storm damage resulting in fish escapes and/ or sea lice entering the loch.</li> <li>• Moorings for pens becoming loose and farmed salmon escaping into Loch Long.</li> </ul>
<p><b>Describe how the integrity of the site (determined by structure and function and conservation objectives) is likely to be affected by the project (eg loss of habitat,</b></p>	<ul style="list-style-type: none"> <li>• Salmon and lamprey both require high water quality therefore any reduction in water quality as a result of the proposal could be significant.</li> </ul>

<p><b>disturbance, disruption, chemical changes)</b></p>	<ul style="list-style-type: none"> <li>• Farmed fish populations are affected by sea lice entering fish enclosures which in turn can then interact with wild salmon.</li> <li>• Chemical treatments for sea lice affects fish welfare and also affects water quality impacting on wild salmon.</li> <li>• Farmed salmon could escape from the enclosures and interact with wild salmon having the potential for genetic introgression.</li> <li>• Faecal waste from the farmed salmon and uneaten food could enter the loch resulting in disruption to water quality.</li> </ul> <p>As a consequence the proposal could affect the following conservation objectives:-</p> <ul style="list-style-type: none"> <li>• Population of the species;</li> <li>• Distribution of the species within the site;</li> <li>• No significant disturbance of the species.</li> </ul>
<p><b>In combination effects.</b></p>	<p>There are no existing fish farms on Loch Long.</p>
<p>Describe what mitigation measures are to be introduced to avoid any adverse effects on the integrity of the site.</p>	<p>The following mitigation and best practice measures are to be put in place by the operator to prevent fish escapes and sea lice entering the loch.</p> <p><b>Water pollution during construction</b> – A Construction Management Plan will be produced to ensure there is no water contamination during construction.</p> <p><b>Sea lice</b> - The containers are semi-closed as opposed to open netted and have a salmon rearing enclosure suspended from a surface float collar which has an impermeable and opaque barrier isolating the farmed environment from the marine. The barrier prevents sea lice forming. In addition prior to stocking the farm a comprehensive sea lice management strategy will be produced for approval from Marine Scotland. No medicinal treatments will be used. See below.</p> <p><b>Chemical pollutants</b> – No chemical treatments to be used. Instead hydrogen peroxide will be used and a Permitted Substance Working Plan will accompany the SEPA Controlled Activities Licence (CAR licence) dealing with water abstraction, discharge of fish excreta, uneaten food and other substances listed in the permit. Eighty five percent of waste will be collected via a sump at the bottom of the containers and transferred to land via a floating umbilical pipe that will be taken to a land base.</p>

	<p><b>Fish escape</b> – The containers have a second mesh bag below the collar to provide an additional barrier reducing risk of escapees. The double barrier combination reduces the possibility of farmed fish escaping if there is equipment failure or collision. Marine Scotland Science has asked that a mooring plan be submitted to them. They could not complete an assessment of the suitability of the equipment to ensure containment of the fish as the information provided to them differed from the equipment which is the subject of the planning application.</p> <p>A wave climate analysis has been carried out to locate the fish farm in a sheltered area of Loch Long that is not susceptible to extreme wave action. Equipment will be checked regularly and there will be surveillance of the equipment above and below water.</p> <p>Equipment will be regularly checked and there will be surveillance to check for any intrusion at the enclosures and related equipment.</p> <p>A finalised Farm and Environmental Management Plan (FEMP) will be produced and approved by the NPA and Nature Scot.</p>
<p>Relevant information from consultees.</p>	<p><b>Nature Scot</b> has objected to the proposal unless it is made subject to the following conditions:-</p> <p>An Environment Management Plan should be agreed in consultation with Loch Lomond and Trossachs National Park Planning Authority and Nature Scot before the site is stocked;</p> <p>The Applicant should adhere to the relevant Technical Standard for aquaculture equipment to reduce the risk of equipment failure and the subsequent occurrence of any significant escape of farmed fish.</p> <p><b>Fisheries Management Scotland</b> has expressed concern that the technology is untested in Scottish Waters. Although they note that there is potential to mitigate some of the risks associated with the fin fish semi-closed farm and in principle support the technology, due to the fragility of the salmon population they are concerned that the location of the fish farm could pose a significant threat to local wild salmon populations. They state that the presence of the SAC and seven local salmon rivers are categorised as a Grade 3 under the Conservation of Salmon (Scotland) Regulations 2016<sup>1</sup>, which demonstrates the fragility of the local wild salmon populations in the area. Grade 3 being the lowest.</p>

<sup>1</sup> The Conservation of Salmon (Scotland) Regulations 2016 state that an assessment of the conservation status of salmon must be carried out for all rivers.

	<p>Grade 3 rivers are assessed by Marine Scotland<sup>2</sup> as having less than a 60% probability of meeting their conservation limit. This includes the Rivers Croe, Loin, Glenfinart, Goil, Eachaig and Ruel. The rivers Endrick and Leven are grade 2 which means that there is a 60 - 80% chance of reaching the conservation limit. The conservation status of each stock is defined by the probability of the stock meeting its conservation limit (CL) over a five-year period.</p> <p><b>Argyll District Salmon Fishery Board</b>, who carry out annual monitoring of wild fish and are the statutory consultee in the aquaculture planning process, state that the salmon numbers are in decline. They summarise this to state they are opposed to the proposal on the grounds that it (the fish farm) has potential to cause further decline in wild salmon populations, which are currently not meeting government defined conservation limits.</p> <p><b>Marine Scotland Science</b> could not complete an assessment of the suitability of the equipment to ensure the containment of the aquaculture animals (fish) as the information on design and specification provided differed from the equipment which is the subject of the planning application. They still require this information to inform on suitability of the mooring equipment.</p> <p><b>SEPA</b> – has no objection as have reviewed the consentability concerns for the application and do not therefore object. They have advised in summary on fallow period required for salmon, requirement to capture 85% of waste from semi-closed containers, surface drainage and runoff on terrestrial site.</p>
<p><b>Evidence of recent 2020 fish farm incidence of fish escapees.</b></p>	<p>A previous escape of farmed fish from Carradale in 2020 resulted in farmed fish appearing in the Endrick Water<sup>3</sup>. The report “<i>Monitoring for the presence of farmed fish in west coast Scottish rivers following an escape from the Carradale north salmon farm</i>” by Fisheries Management Scotland recorded that there were 17 rivers in Scotland and North east England with confirmed verified capture of farmed salmon. This included 118 confirmed records in the River Leven, 1 in Loch Lomond, 5 in river Eachaig and 1 in the river Ruel<sup>4</sup>. The impact from this incident is still being monitored and genetic monitoring to ascertain</p>

<sup>2</sup>Marine Scotland is a **civil service directorate within the Scottish Government**, responsible for leading the protection of Scotland’s coastal waters and seas, to both build sustainable economic growth from Scotland’s marine assets, and to safeguard its valuable marine ecosystems. Marine Scotland is responsible for the Marine Act and devolved areas such as fishing.

<sup>3</sup> Source. Fisheries Management Scotland

<sup>4</sup> Source [Monitoring for the presence of farmed fish in west coast Scottish rivers following an escape from the Carradale north salmon farm.](#)

	<p>if there was any impact on genetic integrity of wild salmon populations as a result of this escape is ongoing.</p>
<p><b>Conclusion</b></p>	<p>Nature Scot has been consulted on this application and their advice is that the proposal could be progressed with appropriate mitigation. Unless an Environment Management Plan and the relevant Technical Standard for aquaculture equipment is adhered to Nature Scot has stated that they object as it could affect internationally important natural heritage interests.</p> <p>We do not agree with the advice of NatureScot who are of the opinion that the proposal could be progressed with appropriate mitigation. Due to this divergence of opinion we sought a meeting with Nature Scot to further understand their position but were unable to reach a consensus on the impacts of the proposal on the integrity of the Endrick Water SAC.</p> <p>We also consider that the opinions of the other consultees above are important and relevant to this matter.</p> <p>Having regard to the evidence before us on this matter We remain of the opinion that the proposal will result in an adverse effect on the integrity of the Endrick Water SAC.</p> <p>In our opinion although a detailed Farm Environment Management Plan and adherence to the Technical Standard could be imposed it is not possible to state with any certainty that there will not be an incident resulting in farmed salmon escaping and interacting with wild salmon which would pose a significant threat to the existing fragile population. Due to this we consider it important that the precautionary principle is applied.</p> <p>Given the recent escape incident (Carradale 2020) we are not satisfied that risk to the Endrick Water SAC can be satisfactorily mitigated. Farmed salmon escaping and interacting with wild salmon would pose a significant threat to the existing fragile population.</p> <p>The seven local salmon rivers within a 30km distance from the proposal are all categorised as Grade 3 under the Conservation of Salmon (Scotland) Regulations 2016 demonstrating the fragility of the local wild salmon population. We believe it is not possible to state that there will not be an adverse effect on the integrity of the Endrick Water SAC. Loch Long is approximately 20 km north of the likely migration route of post-smolts emigrating from the Endrick Water SAC in the wider Firth of Clyde channel.</p>

	<p>In reaching our conclusion it is also important to observe that the technology proposed has not been trialled in Scotland.</p> <p><b>We conclude that the fish farm will have an adverse effect on the integrity of the Endrick Water SAC.</b></p>
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## HABITATS REGULATION APPRAISAL

Report to inform an Appropriate Assessment to be undertaken by the National Park Authority

in respect of the effects of

Planning Application 2021/0357/DET

Installation of a marine fish farm and associated development including shore base, slipway and pontoon and upgrade.

On the Ailsa Craig SPA

## Requirements of the Habitats Regulations

European Sites are **Special Areas of Conservation (SACs)** designated under the EC Habitats Directive to protect particular habitats and non-bird species and **Special Protection Areas (SPAs)** designated under the EC Birds Directive to protect wild birds.

Environmental protection to SACs and SPAs is addressed in Scotland through the *Conservation (Natural Habitats &c) Regulations 1994 (as amended)*, including amendments to address Brexit) which is known as the "Habitats Regulations".

SPAs and SACs provide a network of core breeding and resting sites for rare and threatened species and some rare natural habitats which are protected in their own right.

There have been some amendments to the Habitat Regulations to address the UK's withdrawal from the EU but these have not reduced the high level of protection given by them.

The Habitats Regulations require that:

**Where an authority concludes that a development proposal is likely to have a significant effect on a European site (SPA or SAC), it must undertake an appropriate assessment of its implications for the European site in view of the site's conservation objectives.**

The need for appropriate assessment extends to projects outwith the boundary of the SAC or SPA, in order to determine their implications for the interest protected within the site.

### Significance Test

Regulation 48(1) of the Habitats Regulations requires the "competent authority" (in this case the National Park Authority) to first carry out a 'significance test'. The test for significant effects acts simply as a precautionary filter to exclude any projects which have no possible connection to the conservation interests of the SAC or SPA. This will result in the exclusion of cases where there is clearly no risk of an adverse effect.

Under Regulation 48 of the Habitats Regulations, the LLTNPA, as a competent authority, has a duty to:

- Determine whether or not the proposal is directly connected with or necessary to SAC/SPA management for conservation; and, if not;
- determine whether the proposal is likely to have a **significant effect** on the SAC/SPA either individually or in combination with any other plans or projects;
- If required, seek information from the applicant to enable the appropriate assessment to be undertaken;
- Consult with NatureScot and have regard to any representations they may make.
- If they consider it appropriate take the opinion of the general public.
- Make an **appropriate assessment** of the implications (of the proposal) for the SAC/SPA in view of that site's conservation objectives.
- In the light of the above and subject to regulation 49 the competent authority shall agree to the development only after having ascertained that it will not adversely affect the integrity of the SPA or SAC.



- In undertaking an appropriate assessment have regard to the manner in which a development is to be undertaken and any mitigation that can be imposed.

The first bullet should only be accepted where it is part of a fully assessed, and agreed, conservation management programme. This does not apply in the present case.

If the proposed development is not directly connected with or necessary to site conservation management, the competent authority must determine whether the proposal is likely to have a significant effect on a SPA or SAC. The decision on whether an appropriate assessment is necessary should be made on a precautionary basis.

An appropriate assessment is required where there is a probability or a risk that the plan or project will have significant effects on a site. This is in line with the ruling of the European Court of Justice in Case C-127/02 (the Waddenzee Judgment) which stated:-

*“any plan or project not directly connected with or necessary to the management of the site is to be subject to an appropriate assessment of its implications for the site in view of the site’s conservation objectives if it cannot be excluded, on the basis of objective information, that it will have a significant effect on that site, either individually or in combination with other plans or projects”*

In Sweetman and others v An Bord Pleanála (Case C-258/11) it was stated:-

*“In order to establish whether a plan or project to which article 6(3) of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora applies has an adverse effect on the integrity of a site, it is necessary to determine whether that plan or project will have a negative effect on the constitutive elements of the site concerned, having regard to the reasons for which the site was designated and their associated conservation objectives. An effect which is permanent or long lasting must be regarded as an adverse one. In reaching such a determination, the precautionary principle will apply.”*

We have adopted the reasoning in these cases for our assessment.

### **Appropriate Assessment**

Habitats Regulation 48 (5) requires that *“in the light of the conclusions of the assessment, the authority shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site”*, in relation to its conservation objectives.

It is important to note that arriving at this conclusion requires being certain beyond reasonable scientific doubt.

CJEU Waddenzee case (C-127/02):

*“Therefore, pursuant to Article 6(3) of the Habitats Directive, the competent national authorities, taking account of the conclusions of the appropriate assessment of the implications of mechanical cockle fishing for the site concerned, in the light of the site’s conservation objectives, are to authorise such activity only if they have made certain that it will not adversely affect the integrity of that site. That is the case where no reasonable scientific doubt remains as to the absence of such effects (see, by analogy, Case C-236/01 Monsanto Agricoltura Italia and Others [2003] ECR I-8105, paragraphs 106 and 113).*

### **Agency Role**

In undertaking the Appropriate Assessment, the Habitats Regulations require the National Park Authority as competent authority to have regard to the advice received from Nature Scot. The National Park Authority can also have regard where relevant to the opinions of other bodies where these are material. However, the responsibility for undertaking the Appropriate Assessment rests with the National Park Authority as competent authority and it is not bound to follow the advice of Nature Scot. The National Park Authority must act fairly and rationally and for proper lawful purposes and if it does not follow Nature Scot's advice, provide reasons for not following Nature Scot's advice

### **Conservation Objectives for Ailsa Craig SPA**

To avoid deterioration of the habitats of the qualifying species (listed below) or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained.

To ensure for the qualifying species that the following are maintained in the long term:-

- Gannet (*Morus bassangus*)
- Guillemot (*Uria aalge*) \*
- Herring Gull (*Larus argentatus*)\*
- Kittiwake (*Rissa tridactyla*)\*
- Lesser black –backed gull (*Larus fuscus*)
  
- Seabird assemblage

\*Indicates assemblage qualifier only.

### **Description of proposal**

The 2021/0357/DET application consists of the construction and operation of a semi-enclosed fish farm at Beinn Reithe near Arrochar. It includes marine farm components, shore base components and road upgrades.

#### **The Marine components are:**

- Marine enclosure;
- Harvesting facility;
- The mooring system;
- The floating pontoon;
- The floating umbilical;and
- The marine lighting.

#### **The terrestrial components are:-**

- The office building;
- The oxygen vessels;
- The slipway;
- The waste water treatment plant;
- The mortality handling station;
- The existing access track;
- The new access track and
- The grid connection.

The marine component will consist of 4 circular shaped semi-closed containment farming enclosures with a maximum diameter of 50m and a square shaped semi-enclosed harvesting facility, a mooring system, floating feed, oxygen and waste water pipe to supply the marine farm (floating umbilical) and a backup umbilical as well as under water and navigational lighting.

The final net system is undecided. The top netting system will be either a "hamster wheel" system or a pole mounted top netting system. This is designed to provide optimal support for nets and prevent sagging into water reducing risk of bird entanglement, providing all nets are properly secured and tensioned.

## Significance Test for Planning Application 2021/0357/DET Qualifying Features of the SPA

### Conservation Objectives for Ailsa Craig SPA

To avoid deterioration of the habitats of the qualifying species (listed below) or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained.

As listed above, the Qualifying species for the Ailsa Craig SPA are:-

- Gannet (*Morus bassangus*)
- Guillemot (*Uria aalge*) \*
- Herring Gull (*Larus argentatus*)\*
- Kittiwake (*Rissa tridactyla*)\*
- Lesser black-backed gull (*Larus fuscus*)
  
- Seabird assemblage

\*Indicates assemblage qualifier only.

The Conservation Objectives for the Ailsa Craig SPA are detailed in the background information above.

### Significance Test

The proposed fish farm is located approximately 3 kilometres (3km) east of Beinn Reithe adjacent to the western bank of the upper reaches of Loch Long. It will consist of a semi-closed containment system. There are no existing semi-closed containment fish farms in Scotland. Loch Long connects to the Firth of Clyde 18km from the Marine area.

It includes marine farm components, shore base components and road upgrades.

The marine components are situated on Loch Long and could affect Ailsa Craig SPA. Breeding gannets have a mean foraging range of 120.4km and a mean max foraging range of 315.2km. There is therefore connectivity between gannets from SPA colonies and all marine waters suitable for fin fish aquaculture in Scotland.

There could be significant fatalities of foraging gannets from the Ailsa Craig SPA from entanglement within the nets of the marine farm enclosures.

As a consequence, the proposal is likely to have a significant effect on the qualifying interests of the SPA and an appropriate assessment is required.

**Appropriate Assessment for Planning Application 2021/0357/DET  
Qualifying Features of the SPA**

<p>Elements of project likely to give rise to significant effects on the site.</p>	<p>As highlighted above although the development is within the foraging range of gannets from the Ailsa Craig SPA</p> <p><b>Operation</b></p> <ul style="list-style-type: none"> <li>• During operation there is the potential for foraging gannets to get trapped or entangled in the nets of the marine fish farm enclosures.</li> </ul>
<p>Describe how the integrity of the site (determined by structure and function and conservation objectives) is likely to be affected by the project (eg loss of habitat, disturbance, disruption, chemical changes )</p>	<p>The population of gannets from the Ailsa Craig SPA could be affected as a result of getting entrapped under the net or entangled in the net.</p> <p>As a consequence the proposal could affect the following conservation objectives:-</p> <ul style="list-style-type: none"> <li>• Population of the species;</li> <li>• Distribution of the species within the site;</li> <li>• No significant disturbance of the species</li> </ul>
<p>In combination effects.</p>	<p>There are no existing fish farms on Loch Long or other developments that could affect the qualifying features of the SPA.</p>
<p>Describe what mitigation measures are to be introduced to avoid any adverse effects on the integrity of the site.</p>	<p>The following mitigation and best practice measures are to be secured to ensure that there are no adverse effects on the integrity of the SPA.</p> <ul style="list-style-type: none"> <li>• A pole mounted top net should be employed as opposed to the “hamster wheel” proposal. The mesh size should be 100mm or less to prevent entanglement from diving gannets.</li> <li>• The operators must maintain daily records of wildlife entanglement/entrapment using a standardised Nature Scot <a href="#">Pro-forma</a> and submit 4 monthly returns of these records to LLTNPA , copied to Nature Scot .</li> <li>• The operator must notify LLTNPA and Nature Scot in the event of any significant entrapment of gannets or any other single bird species. Significant should be interpreted as involving three or more birds on any one day and/or a total of ten or more birds in the space of any seven day period and /or repeat incidents involving one or more birds on more consecutive days.</li> <li>• Nets should be checked daily to ensure that they are properly tensioned and secured.</li> </ul>
<p><b>Conclusion</b></p>	<p>Provided the above mitigation measures are secured via appropriately worded conditions, the proposal will not have an adverse effect on the integrity of the Ailsa Craig SPA.</p>

## Appendix 3: Detailed Summary of Representations

### Full summary of reasons for support:

#### Economic and community benefit

- Scottish salmon is the UK's most valuable food export exporting £451 million worth of product to 53 countries in 2020. With a revenue of over 1 billion the sector contributes millions to the public purse in terms of corporation tax. Salmon plays a crucial part in the countries sustainable economic growth and should be celebrated;
- The proposal would bring much needed employment, revenue generation and regeneration to this rural area;
- Fish farming creates well paid jobs for younger people;
- The development would diversify/bring new industry to the community that is not based on tourism;
- Positive economic impact on local businesses, services and trades;
- Direct benefits for Marine businesses located at the European Marine Science Park, Oban;
- The development would support one of two remaining third-party juvenile salmon suppliers who currently employ 26 FTE on the west coast of Argyll;
- The development will safeguard jobs in coastal and rural communities
- The development will create year-round employment
- The development will allow the salmon industry to compete with international suppliers (Norway, Canada etc)
- Scottish Government officials have described the application as 'significant'
- The application would position the National Park as leaders in the wider aquaculture industry
- If this proposal is not supported closed containment will begin south of the border nearer to markets leading to the inevitable closure of Scottish open net farms and loss of Scottish jobs

#### Sustainability

- Locally farmed salmon is better than importing from elsewhere – often by poorly paid workers and with less stringent environmental consideration and animal welfare;
- We should encourage and embrace technology to revolutionise aquaculture and improve fish welfare;
- Local food production is beneficial for carbon footprint reduction;
- Developing aquaculture in Scotland will have net-zero carbon benefits;
- Fish Farming is a low carbon food source – wastes can be reused as fertilizer
- The location has been specifically chosen with the clear aim of minimising landscape and visual impact – greater weight should be placed on the visibility from the communities of Arrochar and Tarbet (who support the application) and not on objectors opinion who will not be able to see it from where they live
- Innovative semi-closed containment system will support the continued growth of an important food industry by increasing production volumes and the efficiencies of sea sites

## Technology / Design

- This project, the first of its kind in Scotland, could herald a step change in aquaculture in Scottish waters and beyond;
- We should positively embrace the innovative culture and the evolution of the industry;
- Semi-closed pen systems (as opposed to controversial open systems) means a higher standard of animal welfare, less problems with predation from seals and birds and less use of chemicals;
- Almost removed risk of lice infestation (and transmission to wild fish) and the need for pharmaceutical lice treatments;
- Waste (85%) would be contained, removed and safely destroyed or recycled
- Reduction in marine debris that accumulates at the head of Loch Long by the semi closed system acting as a boom
- The use of low energy feed distribution systems is a step forward in the goals of lower carbon emissions for food production
- The technology shows commitment to caring for the marine environment
- Substantial fish health improvements compared to traditional methods
- There are lower environmental risks with the semi-enclosed design
- SEPA undertaken an assessment of the seabed and water quality and has granted a CAR licence
- Important this technology is showcased on Scottish shores to prove to the rest of the industry it is the way forward
- The development will keep Scotland at the forefront of research and salmon production

### **Full summary of reasons for objection:**

#### Waste issues/impacts

- The claims about the levels of waste removal, and the fact that these can be sustained for the lifetime of the facility cannot be substantiated;
- The development represents a huge risk of major contamination of the headwaters and seabed of Loch Long;
- CAR licence requirements have not adequately addressed the effective collection of the faeces waste generated and collected. There are fundamental flaws in assumptions related to particle size that raise doubt over the assumed [85%] level of capture performance. No precedent or confirmation of this level of performance in capture for this aquaculture technology experienced elsewhere.
- SEPA should include capture performance monitoring as part of the licence;
- Although semi-enclosed containment has been developed and used for some years in Norway, waste has been allowed to fall out of enclosures to the seabed;
- Much of the waste from fish farms is invisible, e.g. dissolved nutrient and abraded microplastic particles (if automatic feeding systems are proposed). The latter cause algal blooms in warm weather which are utterly insidious and damaging to human and animal health;
- Farmed salmon produces dissolved nitrogen which can promote harmful bacterial blooms and jelly fish blooms that kill farmed fish and other animals;
- No technology exists which can remove dissolved organic and inorganic waste;

- Harmful Algal Blooms (HAB's) and associated bio-toxins occur in waters affected by feedlot discharges;
- Concern there is political pressure to increase the size of the industry and concurrent failure of academic and Government regulatory agencies to carry out comprehensive scientific research on the impact of waste from intensive animal production.
- There is limited tidal scouring/cleansing within this sea loch – accumulated waste would travel northwards affecting Arrochar
- The ECE method assumes nutrient dispersal and flush to sea. Marine Scotland's risk category (Cat. 3) for Loch Long takes no account of the sill that separates upper Loch Long, which means its water flushes very slowly. The ECE method is clearly inappropriate in this case and SEPA has not applied enough precaution in its assessment.
- Lack of effective monitoring of dissolved nutrients – SEPA's satellite sensing of chlorophyll-a would not detect jellyfish and bacterial blooms which, unlike algae, have no chlorophyll;
- The low level of tidal current flows in the loch at this location mean that the discharge will accumulate, smothering seabed habitats. A 2-4 week fallow period is too short for effective remediation of the seabed;
- Monitoring water quality only once every two years is far too little;
- Loch Long needs to be retained as a fish farm free 'control' baseline against which to monitor impacts elsewhere;
- Use of toxic chemicals, e.g. formaldehyde and hydrogen peroxide which will flush into the loch in dissolved waste
- 15% of faecal matter released to loch is the equivalent of waste generated by 31,500 people per annum

#### Environmental /Wildlife Impacts

- Jobs created (12 jobs) far outweighed by negative environmental impacts
- Potential negative impact on the Endrick Water SAC qualifying species – the precautionary principle should be applied until the full impact of this design of facility on wild fish species and water quality is known;
- The development supports indirect expansion of open pens (where maturing fish will be transported to) and exacerbate existing impacts on wild Atlantic salmon and sea trout caused by salmon farming in those locations;
- Sea lice threat to wild salmon and sea trout;
- EIA assumptions and assessment of sea lice impact is confusing;
- Loch Long has higher sea temperatures than comparison site in Norway - conditions which allow sea lice to thrive even at depth;
- Risk of increased occurrence of sea lice and damage to wildlife and water quality from associated chemical and/or pharmaceutical treatments including hydrogen peroxide (which has proven not break down as suggested) and Alphamax;
- EIA report (Chapter 10 interactions with wild salmonids) downplays wild salmon declines using a misleading comparison of present day and 1952 wild fish stocks;
- Submission claims nearest seal haul-out is Ailsa Craig. This is total nonsense. There are seal haul out areas in closer proximity and at Coilessan. Risk of disturbance to seal pups.

- EIA assessment is 'thin' and grossly underestimates the local terrestrial and marine diversity and population size – it cannot be relied upon
- Sightings of only 16 Grey and 16 Harbour seals and 22 porpoises from 2002-2019 is a ridiculous underestimate
- Seals hunt as much by smell as well as sight, opaque nets will not stop them being attracted
- This development is in clear contravention of the statutory protections afforded to otters - above ground otter couches have been found by the Forestry Ecologist
- The activity and predator management could potentially endanger otters, seals, porpoises and dolphins- all of which are present in Loch Long;
- There is a recorded seal colony nearby at Ardentinny.
- Net breaches and subsequent dilution of wild salmon and trout populations is inevitable;
- Development would exacerbate existing issues with algal bloom (caused by discharge of algae-contaminated ballast from tankers at Finnart Oil);
- Concerns in relation to the conclusions of benthic surveys and the methods of assessment of seabed habitats and communities including:
  - under valuing the present habitats and resultant down playing of implications of further impacts,
  - inadequate consideration of presence of a Priority Marine Feature (Icelandic cyprine *Arctica islandica*)
- The access to the development may impede fish using the small watercourses such as Coilessan Water;
- Concerns for farmed fish welfare, overcrowding, disease etc. Doubled stocking density increases risk of disease and mortality if the critical oxygenation of the water is not managed properly at all times;
- This development would make seawilding initiatives in the area untenable;
- Only 44% of the lochs and rivers in the National Park are deemed to be in good condition by SEPA. A fish farm is the exact opposite of what is required to improve water quality
- Risk to sea pen (*Virgularia mirabilis*) (a Local Biodiversity Action Plan (BAP) listed species)
- Risk of adverse impacts on adjacent Marine Protection Area
- Risk to the protected sea squirt *Styela Gelationosa*
- Environmental impacts would be irreversible
- SEPA has no oversight over the well-publicised radioactive water pollutants being release from Faslane (33 leaks 1980-1998) – this is no place to raise salmon for human consumption
- Despite reassurances in 2017 a company used toxic, unpermitted Azamethiphos to treat fish lice which devastated crustaceans, fish and birds – there can be no assurance this won't happen again
- The proposed location will affect a tract of ancient woodland

### Technology / Design

- The Fiizk system is flawed and must not be trialled in such a sensitive location
- The type of technology being applied is unproven in Scotland and a similar trial in Canada had to be halted for insurmountable reasons;



- This proposal should be trialled in an aquaculture area or existing site, not a pristine site;
- There is an alternative, more appropriate site in Loch Linnhe;
- A much smaller scale of pilot operation would be more appropriate to test this technology.
- Stocking rate quoted is 5% fish / 95% - double conventional volume and will encourage disease and mortality;
- The submission quotes both 4000 tonnes biomass and 570 tons. Which is it?
- Application for future conversion to conventional, highly profitable open-pen fish farm farming can't be ruled out if and when insurmountable environmental issues with unproven technology arise that cannot be mitigated economically;
- Full closed (on land) containment farming would be more appropriate in this sensitive environment.
- It would be better to test this technology at an existing site
- If successful, land-based, fully closed fish farms are likely to make both open net and semi-closed fish farms in Scotland obsolete owing to their dramatically larger capacity.
- Threat of microplastics present in Loch Long entering the food chain

#### Amenity Impacts

- Potential odour impacts from waste recovery, treatment and transportation process on nearby residents.
- Odour has not been adequately assessed within the developers' Environmental Assessment. A solid with only 5% water content cannot be 'pumped' as proposed - more sophisticated equipment than specified will be needed to contain odour nuisance;
- Offensive odours released during cleaning/maintenance of the equipment.
- Noise (EIA Chapter 16) does not take into account noise nuisance from vehicles using the track
- Noise from the rattling of feed travelling inside the umbilical (which is also audible under the water and scares wildlife) has not been considered;
- Damage and impact on private water supply and associated infrastructure (grid ref NN270028).

#### Landscape Impacts

- Hideous buildings would scar views of the pristine loch shore and untouched hillside
- Any industrial development in an area of great landscape quality should be avoided - our pristine landscape has commercial and quality of life value;
- The development will lead to visual intrusion, noise and light pollution not in keeping with the special qualities of the national park landscape famed for its rural beauty and its tranquillity;
- Noise impacts from automated processes operating 24 hours and associated traffic;
- The Northern Lighthouse Board requirement to install a light flashing yellow 4 times every 12 seconds will be an additional source of light pollution;
- The intrusiveness of necessary lighting (including underwater) has not been addressed in the submission;
- The proposed access and power supply routes would necessitate a scale of engineering work unsuitable within a National Park;

- Development of a presently unspoilt area of coastline visible from the approach to Arrochar along the A814 (a 'Gateway to the Highlands' and a vital contribution towards visitors' first impressions);
- Visual impact from the 3 Lochs Way;
- It will be visible from the A83
- The SLVIA does not consider the impact on the forestry track beyond Coilessan;
- SVLIA visualisations are misleading specifically viewpoint 9 which shows 5 circles in the water but omits the cages and access gangways across the top of the enclosures;
- Impact on / loss of native and ancient woodland;
- The 2016 Clyde Marine Plan survey assessed the stretch of loch shore as being 'High Sensitivity' to built development;
- There are anomalies between the Marine Enclosure elevations (3.7mx6.1mx2.6m w, l, h) and section 4 of the EIA (2.5mx6.1mx2.6m w, l, h) which assumes a smaller control cabin than that shown in the elevation
- The elevation plan disguises 3 of the proposed 4 towers

### Tourism

- Impacts on use by vehicles and HGVs of sections of the Cowal Way and Loch Long Circular Route;
- Negative impact on the visitor experience at Coilessan camping permit area;
- There is no assessment of impacts on marine tourism (which contributes almost twice as much GVA as aquaculture as a percentage of Scotland's total economy and provides far greater employment opportunities);
- No consideration of how the development might impact on access and recreational water sports – it will in effect create 'no go' areas and/or exclusion zones in an already narrow sea loch;
- Development of this nature will seriously detract from the visitor experience and totally contravenes the aims of the National Park;
- The development would be grossly detrimental to the area's amenity and to the tourist economy;
- Likely reduction in visiting anglers due to further associated impacts on already declining wild fish stocks;
- The bed of the loch is popular for divers but will be affected by sludge;
- Just because an area has absorbed a lot of industrial development already, does not mean it has the capacity to absorb more;
- Development size poses potential detrimental effect to navigation of Loch Long for leisure shipping, military and civilian shipping. There is also heavy commercial fishing pressure.
- Upgrading and use of sections of the Cowal Way and Loch Long Circular Route plus the forestry track beyond Coilessan for the main access would ruin the whole experience of walking or cycling along these routes;
- This major industrial development is totally incompatible with the developing emphasis in recent years on this locality for its leisure and recreational value
- The development will scupper growth of recreational sea angling and commercial creeling and diving

### Access/Transportation

- The road would carry frequent HGV traffic which would be dangerous for walkers, cyclists and those taking recreation in Ardgartan Forest;
- The single track road has steep sections and blind spots and is totally unsuitable for HGV access - the issue of appropriate, safe, access has not been evaluated effectively in the EIA
- The single-track access road is unsuitable for transporting waste and dangerous and highly flammable cargo – particularly in the winter months when vehicles regularly slide off the road;
- Upgrading the rural track together with the considerable increase in vehicular traffic is potentially dangerous and incompatible with the original concept for Ardgartan and its place in the National Park;
- The access is already frequented by touring coaches and delivery lorries to the Lochs & Glens Holidays Hotel and the timber lorries used for harvesting. Operators do not comply with traffic management plans and some passing places is not a solution (as demonstrated by the Ardgartan Hotel development);
- Chapter 18.5.2.3 states 11,765 2 way vehicle movements over 16 months (24 two-way movements per day) - construction vehicle impacts on the road and other users has been played down.

### Sustainability/Climate

- Unsustainable commercial industry should not be favoured over long term sustainable development
- Loss of safe, productive fishing grounds at a time when spatial squeeze is impacting on coastal fishing- - Marine Plan section 6 refers to the importance of retaining these grounds
- The developers make no mention as to an environmentally sustainable feed source;
- There is no assessment of the carbon footprint of this proposal and the impact on important blue carbon climate mitigation marine habitats (such as mud habitats);
- This installation will not be low carbon with soya and palm oil as major ingredients - both involved in decimation of wild places
- The Clyde has already 16 salmon farms, and 5 more are actively seeking approval – total emissions into the Clyde from the 16 farms from 2015-2019 (tonnes) include copper (36), zinc (13), nitrogen (5176), phosphorous (640) and organic carbon (14873). This amounts to substantial cumulative harm.
- Protection for these waters is needed, not more exploitation.
- Jobs for local people will not materialise – they are specialist jobs brought in from elsewhere

### Procedural/Legislative Matters

- Approval would set a dangerous precedent for such developments in the national park
- The company's attempt to establish its social responsibility by offering (£100k per year) is not enforceable and doesn't make up for the environmental loss
- The proposal is contrary to Natural Environment Policy 14 "Marine and Inland aquaculture" and contrary to Natural Environment Policy 11 "Protecting the Water Environment" under clauses a. and b;

- This proposal is contrary to Local Development Plan Over Arching Policies 1, 2, Visitor Experience Policy 1 and 2, Economic Development Policy 2, Natural Environment Policy 1,4, 5, 6, 8, 11,14, 15.
- The National Park was not formed to promote commercial/industrial activity of this nature. It is inconsistent with the four National Park aims and the aim to conserve and enhance the natural and cultural heritage;
- This development would set a precedent for further fish farms in Loch Long;
- The Precautionary Principle set out in The Environment Strategy for Scotland must be observed;
- Allowing the fish farm would contravene United Nations Sustainable Development Guidelines as it would conflict with Sustainable Development Goals 6.3, 6.6, 6.b,8.9, 9.4, 11.4, 12.1, 12.2, 12.3, 12.4, 14.1, 14.2, 14.4, and 15.5.
- The EIA fails to consider the cumulative impact of fish farms and expansions (existing and proposed) on the Clyde;
- The Planning Committee should be made aware of efforts to influence public opinion via recent media stories on the BBC and in The Herald which omit reference to controversial aspects of the proposal;
- The development would not contribute positively to the Future Nature strategy of the national park

# Appendix 4: Viewpoint Location Plan

