Agenda Item	6.3
Report No	PLS/080/19

HIGHLAND COUNCIL

Committee: South Planning Applications Committee

Date: 29 October 2019

Report Title: 18/02922/FUL: Marine Harvest (Scotland) Ltd

Site at Maclean's Nose, Loch Sunart, Acharacle

Report By: Area Planning Manager – South

Purpose/Executive Summary

Description: Increase number of fin fish pens from 12 to 16 at established fish farm

Ward: 21 - Fort William and Ardnamurchan

Development category: Local development

Reason referred to Committee: Objection from statutory consultee

All relevant matters have been taken into account when appraising this application. It is considered that the proposal accords with the principles and policies contained within the Development Plan and is acceptable in terms of all other applicable material considerations.

Recommendation

Members are asked to agree the recommendation to **Grant** planning permission as set out in section 11 of the report.

1. PROPOSED DEVELOPMENT

1.1 This application seeks planning permission for the addition of four 120m circumference circular pens to the twelve that are already operating at the site. This will allow for the maximum stocked biomass at the farm to be increased from its current 2500 tonnes up to 3500 tonnes. An existing 2m x 3m raft is to be replaced by one of 2m x 5m.

1.2 The application also includes the replacement of the existing 200 tonne feed barge by a more boat-like Gaelforce SeaMate design of 400 tonnes. However, as can be seen at paragraph 3.5 below, this has been overtaken by events and the applicant has opted to replace the feed barge under existing permitted development rights - 19/02640/PNO.

1.3 The existing twelve cage farm is orientated roughly north-west/south-east and organised into two groups of six cages in a 2 x 3 grid. This proposal would add the four new cages to the southern end of the southern group to create a 2 x 5 pattern. The farm will continue to be serviced from Kilchoan some 4.5km along the coast to the north-west of the site.

1.4 Pre-Application Consultation: the proposal has not been the subject of formal pre-application advice but was discussed extensively in the context of application 18/00584/FUL off the Isle of Muck for reasons detailed below.

1.5 Supporting Information: the application has been submitted with a full EIA report in accordance with the authority's conclusion that it amounted to EIA development (17/04663/SCRE).

1.6 Variations: In response to concerns raised about the impact of the proposal upon wild salmonids and therefore local fresh water pearl mussel (FWPM) Special Areas of Conservation (SAC), a suite of additional SAC, wild salmonid and on-farm management and monitoring measures were submitted on 13 November 2018 and also a draft Loch Sunart Regional Environmental Management Plan (EMP).

2. SITE DESCRIPTION

2.1 The site is positioned just off the southern Ardnamurchan coast (the northern coast of Loch Sunart) and due north of the point at which Loch Sunart and the Sound of Mull combine.

2.2 At this point on the coast the landscape is dominated by steep cliffs rising up to the summit of Ben Hiant and the existing farm is positioned at the foot of these with the cliffs as a backdrop from most viewpoints.

3. PLANNING HISTORY

3.1	21.12.2012	12/04262/SCRE - EIA Screening Request - Marine Fish Farm - Atlantic Salmon, New site consisting of 12 x 120m Circular cages and automated feed barge.	EIA Required

3.2	05.02.2015	14/02568/FUL - Marine Fish Farm - Atlantic Salmon - New site comprising 12 x 120m circumference circular cages in a 75m mooring matrix and a 200 Tonne capacity C-Cap feed barge	Planning Permission Granted
3.3	13.10.2017	17/04663/SCRE - Marine Fish Farm - Atlantic Salmon - Replace 12 x 120m circle cages with 16 x 120m circle cages, a new 400t feedbarge and extended planning boundary	EIA Required
3.4	08.11.2017	17/04664/SCOP - Marine Fish Farm - Atlantic Salmon - Replace 12 x 120m circle cages with 16 x 120m circle cages, a new 400t feedbarge and extended planning boundary	Scoping Decision Issued
3.5	09.07.2019	19/02640/PNO - Marine Fish Farm - Atlantic Salmon - To replace the existing C-cap (10m diameter) feed barge(appendix 2) with a Gael Force 400T seamate(14m x 14m) as shown in Appendix 3	Prior Approval Not Required

4. PUBLIC PARTICIPATION

4.1 Advertised: EIA Development and Unknown Neighbour

Date Advertised: Oban Times: 13.07.2018 and re-advertised 27.11.2018

Edinburgh Gazette: 13.7.2018 and re-advertised 23.11.2018

Representation deadline: 08.01.2019

Timeous representations: 7 from 7 addresses

Late representations: 0

4.2 Material considerations raised are summarised as follows:

Against:

a) Sea lice emissions from this farm could impact negatively on two SACs through reducing the number of wild salmonids and therefore the number of host fish to support the freshwater pearl mussel resource of these protected areas.
b) Previous permission had a target of 0.1 lice per fish throughout the year. This has not been met and a 40% increase in biomass will result in a 40% increase in sea lice emissions.
c) Concerned that monitoring wild fish as part of the adaptive management of the expanded farm will prove difficult – the Lochaber Fisheries Trust have tried and failed in this regard in the past
d) Local sea trout numbers have declined in recent years – concerned this proposal will add pressure to a struggling species
e) Restoration project in the River Strontian could be imperilled by increased environmental pressure from this proposal

f) Maclean's Nose site straddles two farm management areas raising different age classes of fish at the same time and this undermines sea lice control measures
g) Farm should endeavour to meet the North Atlantic Salmon Conservation Organisation international goal of not increasing sea lice loads or sea lice induced mortality of wild salmonids
h) A precautionary approach should be adopted
i) This is an inshore site and lies close to migratory salmon routes
j) Submitted sea lice performance data is inaccurate
k) Submitted EMP is vague and aspirational with no detail about wild fish monitoring and no explanation of actions to be taken if monitoring shows a negative impact
l) EMP is too vague to satisfy the requirements of the Habitats Regulations
m) The existing farm has resulted in the loss of fishing grounds for a considerable area around the cages
n) Growth of this farm should not come at the expense of the growth of the fishing industry

For:

o) Planned expansion is a fantastic opportunity for the local community with limited employment opportunities – expansion will add a further 4 positions to the 7 already employed on the farm
p) Wages will be spent locally
q) Workforce are important in the community as volunteers for the RNLI, Fire Service, first responders etc.
r) May attract new families into the area
s) May encourage local population to stay

4.3 All letters of representation are available for inspection via the Council's eplanning portal which can be accessed through the internet www.wam.highland.gov.uk/wam.

5. CONSULTATIONS

5.1 **West Ardnamurchan Community Council** supports the development on the grounds that it will increase local employment opportunities and promote economic sustainability in Kilchoan and the wider area.

5.2 **Acharacle Community Council** advise that the site falls within West Ardnamurchan Community Council remit.

5.3 **Environmental Health**: No response

5.4 **Transport Planning Team**: No objection

5.5 **Scottish Ministers**: No objection

5.6 **Marine Scotland Science**: Comments only

- some evidence from 2017 figures that high levels of sea lice were successfully controlled by the applicant at this farm and another within the same farm management area

- the applicant is able to control lice with cleaner fish, freshwater treatments and chemotheraputants at this site
- Rivers Strontian, Polloch and Carnoch are known habitat for salmon and sea trout
- medicinal treatment time for whole site of 14 days is particularly long
- freshwater treatment for sea lice will not/cannot be used as cleaner fish are to be stocked at this site

2nd response following re-consultation:

- note submission of EMP – needs to respond to SEPA's Interim Position Statement on the more limited use of emamectin benzoate
- EMP requires a more explicit linkage between wild fish monitoring results and management of the farm

5.7 **Marine Scotland Licensing**: marine licence required

5.8 **Crown Estates**: No response

5.9 **SEPA**: No objection

- CAR license likely to be issued subject to appropriate assessment

5.10 **SNH**: Response delayed to allow for a similar planning application off the Isle of Muck (18/00584/FUL) to be determined and a corresponding suite of adaptive environmental monitoring proposals (EMP) to be submitted. No objection subject to EMP.

- note that original permission included an EMP due to concerns about SAC impact
- second production cycle showed improved sea lice control performance
- proposed EMP with this application is based upon what was agreed in respect of the Isle of Muck proposal – goes beyond sea lice monitoring and control to encompass wild fish health and numbers monitoring alongside sea lice dispersion monitoring
- SNH in discussions with Lochaber DSFB and Fisheries Trust in respect of monitoring methodologies
- The proposal could affect Ardnamurchan Burns SAC, Mingarry Burn SAC, Glen Beasdale SAC and River Moidart SAC, all of which are designated for fresh water pearl mussel (FWPM)
- It is also within Inner Hebrides and Minches SAC selected for harbour porpoise.
- It is adjacent to Sunart SAC designated for reefs, otters and a suite of terrestrial habitats.
- **In respect of the FWPM SACs**, Highland Council is required to carry out an appropriate assessment in view of the sites' conservation objectives for their qualifying interests
- SNH conclude that so long as the submitted EMP incorporates the amendments identified at Annex B of the consultation response then the proposal will not adversely affect the integrity of these sites.
- **In respect of the Inner Hebrides and Minches SAC** the increased number of Acoustic Deterrent Devices (ADD) being proposed indicates that the

Highland Council, as competent authority, is required to carry out an appropriate assessment in view of the site's conservation objectives for its qualifying interest

- SNH conclude that so long as only the "Terecos" units currently deployed are involved the proposal will not adversely affect the integrity of the site. This will need to be conditioned as more powerful units could have a much greater impact on harbour porpoise movements in these constrained waters.
- **In respect of the Sunart SAC** the proposal remains outside the SAC boundary and so its benthic deposition is unlikely to impact the designated reef. Otters using the shoreline and shallow waters will be used to the existing fish farm and the proposed expansion is unlikely to increase disturbance. No further consideration is required.
- **In respect of the Loch Sunart to the Sound of Jura Nature NC MPA** SNH conclude that the proposal is capable of affecting the common skate protected feature of Loch Sunart to the Sound of Jura MPA. The proposal could theoretically result in a reduced availability of prey species and also affect egg-laying areas of the skate. However, the area affected will be small and within the context of the MPA as a whole these effects are insignificant. Further assessment is therefore not required.
- In respect of local Priority Marine Features SNH advice is that taking into account the widespread nature of the burrowed mud habitat, the typical quality of the habitat in this location, the relatively small area affected, and the low density of *Funiculina* (tall sea pen) and *Pachycerianthus* (fireworks anemone) observed; our advice is that this proposal will have only local effects on these interests.

5.11 **Scottish Water**: No objection

5.12 **Transport Scotland**: No objection

5.13 **Northern Lighthouse Board**: navigational lighting recommendations

5.14 **Lochaber District Salmon Fishery Board**: Objection

- existing three year old farm has only completed one production cycle and sea lice levels were above target levels at times
- this is an inshore site and so lies potentially on salmon migration routes from Lochs Linnhe and Sunart and the Sound of Mull
- submitted sea lice figures for the past are incomplete
- a 40% increase in biomass will increase sea lice emissions in proportion
- viral infection and high rates of mortality are also a concern in respect of wild fish impacts
- unconvinced by suggestions that new techniques of sea lice control will greatly improve on past performance of sea lice control

2nd response following re-consultation: Maintain objection

- proximity to wild salmon migration route suggests that this site should not be expanded – in line with parliamentary committee conclusions, "…*There should be an immediate and proactive shift towards locating new farms in more suitable areas away from wild salmon migratory routes*…"

- past performance of the farm indicates that it was unable to operate within CoGP guidelines for significant periods
- this is not a high energy offshore site in the way that the applicant's small isles sites are
- LDSFB would like to see the adaptive management of this and other sites in the area to include a commitment to ensure the farms are synchronously fallow in March, April and May of each second year to minimise impacts upon migratory salmon

5.15 **Historic Environment Scotland**: No objection

- Will not have a significant impact on the Mingary HMPA

6. DEVELOPMENT PLAN POLICY

The following policies are relevant to the assessment of the application

6.1 Highland Wide Local Development Plan 2012

28 - Sustainable Design
36 - Development in the Wider Countryside
49 - Coastal Development
50 - Aquaculture
57 - Natural, Built and Cultural Heritage
58 - Protected Species
59 - Other important Species
60 - Other Importance Habitats
61 - Landscape
72 - Pollution

6.2 West Highland and Islands Local Development Plan 2019

No specific policies apply

6.5 Highland Council Supplementary Planning Policy Guidance

Highland Historic Environment Strategy (Jan 2013)
Highland's Statutorily Protected Species (March 2013)
Special Landscape Area Citations (June 2011)

7. OTHER MATERIAL POLICY CONSIDERATIONS

7.1 Scottish Government Planning Policy and Guidance

- SPP (2014) paragraph 204 states;

"*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. The precautionary principle should not be used to impede development without justification. If there is any likelihood that significant irreversible damage could occur, modifications to the proposal to*

eliminate the risk of such damage should be considered. If there is uncertainty, the potential for research, surveys or assessments to remove or reduce uncertainty should be considered."

- SPP (2014) paragraph 250 states;

"*The planning system should:*

• play a supporting role in the sustainable growth of the finfish and shellfish sectors to ensure that the aquaculture industry is diverse, competitive and economically viable;

• guide development to coastal locations that best suit industry needs with due regard to the marine environment;

• maintain a presumption against further marine finfish farm developments on the north and east coasts to safeguard migratory fish species."

- SPP (2014) paragraph 253 states;

"…..*The planning system should not duplicate other control regimes such as controlled activities regulation licences from SEPA or fish health, sea lice and containment regulation by Marine Scotland.*"

- National Marine Plan (2015)

8. PLANNING APPRAISAL

8.1 Section 25 of the Town and Country Planning (Scotland) Act 1997 requires planning applications to be determined in accordance with the development plan unless material considerations indicate otherwise.

Determining Issues

8.2 This means that the application requires to be assessed against all policies of the Development Plan relevant to the application, all national and local policy guidance and all other material considerations relevant to the application.

Planning Considerations

8.3 The key considerations in this case are:

a) compliance with the development plan and other planning policy

b) planning background of this application

c) parliamentary reports, the precautionary principle and national policy

d) impact upon migratory salmon

e) impact upon the fresh water pearl mussel SACs

f) impact upon the Inner Hebrides and the Minches SAC

g) visual and landscape impact

h) economic impact including other fishery users

Development plan/other planning policy

8.4 Policy 50 (Aquaculture) of the Highland-wide Local Development Plan (HwLDP) is the key policy in respect of this application. Policy 50 states that the Council will support the sustainable development of finfish and shellfish farming subject to there being no significant adverse effect, directly, indirectly or cumulatively on the natural, built and cultural heritage and any existing activity. The other policies of relevance to the above considerations are set out at paragraph 6.1 above. Subject to ensuring that the above requirements are met then the proposal would accord with the development plan.

The Planning Background of this application

8.5 At the time this application was submitted, the planning authority, its consultees and the applicant were already in discussion about the determination of the Isle of Muck fish farm expansion application 18/00584/FUL. This application had already raised the material consideration of impact upon the four fresh water pearl mussel SACs on the adjacent mainland coast.

8.6 It was clear that this Maclean's Nose proposal had the same, if not greater, potential for impact upon these SACs (subsequently confirmed by the sea lice dispersion modelling carried out). In the light of this it was suggested that determination of this application should be delayed until it had been shown whether the Isle of Muck application could be consented or not.

8.7 Ultimately, an acceptable adaptive environmental management plan was arrived at for the Muck case and that application was granted planning permission in July of this year. SNH provided its consultation response almost immediately after this point in time. There was some further delay in respect of concerns over whether Marine Scotland would license some of the required wild fish monitoring, but by the end of September the applicant was able to confirm that those licenses had been issued.

8.8 As detailed below, the outcome of the Isle of Muck application also provides a resolution to the fresh water pearl mussel SAC concerns raised by this application. However, it must be noted that this application also raises issues of impact upon the harbour porpoise SAC and is also more directly positioned relative to wild salmon migration routes. Both matters are addressed below.

8.9 Another outcome of the very considerable delay has been that the applicant has been forced for operational reasons (i.e. smolts were already in production) to place these extra cages in the water and begin the next production cycle before permission is granted. The applicant has been open about this and a parallel issue in respect of unrelated delays with the granting of the requisite SEPA CAR license due to SEPA's current regulatory review. This was all explained in a letter to the planning authority in July, by which time it was known that the main material consideration of the FWPM SAC had been successfully overcome. Officers were content to accept this situation in these unique circumstances and in the knowledge that the cages could be readily removed at or before the end of the current production cycle if planning permission was not forthcoming.

Parliamentary reports, the precautionary principle and national policy

8.10 At the current time, no assessment of a fish farm application would be complete without some acknowledgement of the greatly increased public scrutiny of the industry which has accompanied and been reflected by the inquiries held by two Scottish parliamentary committees in 2018 and their subsequent reports.

8.11 The Fishery Board and several of the third party comments received in respect of this application have referenced these reports and particularly the criticism of the industry that they contained. One theme repeated in the objections was a call by the committees for regulators, including planning authorities, to employ the precautionary principle on a more regular basis.

8.12 As identified at paragraph 7.1 above, Scottish Planning Policy published in 2014 has provided a definition of the precautionary principle to be used in Scottish planning decisions. As such it is considered compatible with Scotland's international obligations as the concept has been adopted by both the UN and the EU. It is noted that this post-dates the 2012 HwLDP Policy 28.

8.13 The SPP definition sets some important limitations to the application of the precautionary principle. It only relates to interests of national and international importance. There should be sound evidence indicating that significant irreversible damage could occur and if there is uncertainty, the potential for research, surveys or assessments to remove or reduce uncertainty should be considered.

8.14 In this case the interests of international importance are the four fresh water pearl mussel SAC's identified in SNH's consultation response and also the Inner Hebrides and the Minches SAC (assessed below and in the appropriate assessment appendices). Many parties have suggested that the precautionary principle could be legitimately used more widely. Arguably, the status of both salmon and trout as Priority Marine Feature species provides them with 'national importance'. However, as can be drawn from SNH's consultation response on this and other similar applications, the precautionary principle would only apply in these circumstances when the predicted effect related to the status of the national population as a whole rather than just a small component of it.

8.15 To date, the parliamentary reports have not resulted in any fundamental change to national aquaculture planning policy. National policy continues to be balanced between a generally positive approach on the mainland west coast, Western Isles, Orkney and Shetland and a prohibition on any new aquaculture off the northern and eastern mainland coasts in the interests of protecting wild fish.

8.16 In this regard it is also important to fully appreciate the implications of paragraph 250 of SPP (also at 7.1 above). This is the part of national policy maintaining the presumption against further marine finfish farm developments on the north and east coasts of Scotland to safeguard migratory fish species. Two significant inferences can be drawn from this policy position;

i. the Scottish government accepts that the risk posed by finfish farming to migratory fish species (wild salmonids) is great enough to justify a planning moratorium around the majority of the Scottish mainland coastline – the north

and east coast where particularly significant salmonid populations are found. Planning moratoriums are unusual and this approach can be seen as an explicit example of the precautionary principle being applied at the national level.

ii. In allowing finfish farming on the west mainland coast and the northern and western isles, the government is aware and accepts the risk to wild salmonid populations in these areas, but concludes that the overall environmental cost is justified and outweighed by the benefits derived from a successful aquaculture industry.

This is not to say that the policy can be read as a 'free for all' in the locality of this application. Environmental impacts must still be carefully assessed and a balanced planning judgement made, but it does suggest that simply identifying an unquantified negative impact on wild salmonids, at the local level, is not enough to justify a refusal of planning permission.

8.17 As part of the government's response to the parliamentary reports, working groups, including planning authority representation, have been set up to specifically examine the issue of wild fish interactions with aquaculture. SEPA are also revising their aquaculture policies and role and carrying out scientific research to support future regulatory improvements. The only clear change in policy position has been from Marine Scotland which has endorsed the EMP approach to post-consent adaptive management. It is conceivable that this may be reflected in revised future national guidance and policy. Until then the planning authority is obliged to consider applications within the framework of current and applicable regulations, guidance and policy.

Impact upon migratory salmon

8.18 Although in legislative terms, the potential impact of this proposal upon the designated SACs are the most significant impacts to be considered as part of this determination, the Fishery Board, as made clear in its objection, consider the potential impact of the 1000 tonne biomass increase on migratory fish to be its main material concern. Policy 59 (Other Important Species) of the HwLDP requires the council to have regard to the presence of, and any adverse effect of development proposals, either individually and/or cumulatively on species including the multi-sea-winter component of the Atlantic salmon population (included in the UK Biodiversity Action Plan Priority Species List and as a Priority Marine Feature).

8.19 By way of background to this these considerations, wild salmonids i.e. wild salmon and trout, are protected species. Among other designations, Atlantic salmon is listed on Appendix III of the Bern Convention and Appendix II and V of the EC Habitats and Species Directive and is listed on Schedule 3 of the Conservation (Natural Habitats, andc.) Regulations 1994 (as amended) whilst in freshwater. The multi-sea-winter component of the Atlantic salmon population is included in the UK Biodiversity Action Plan Priority Species List. This species is also a Priority Marine Feature (PMF). Trout (Salmo trutta) are also a PMF and are on the UK Biodiversity Action Plan Priority Species List and received some protection within the fisheries

acts relating to the protection of 'salmon'. The Council also has a Biodiversity Duty under the Conservation of Nature (Scotland) Act 2004 to protect them. Clearly therefore, any impacts on these species must be considered.

8.20 Significantly, the overall numbers of wild salmonids in Scottish coastal waters has declined dramatically over the last few decades. Whilst there is no definitive evidence to suggest a causal connection with fish farming, it has created a situation where planning authorities need to satisfy themselves that new fish farm permissions will not add to the environmental pressures on an already struggling set of species and make a bad situation even worse.

8.21 The MSS consultation response stresses that there is now plenty of evidence from Norway and other producer states showing that sea lice emissions from fish farms can result in increased mortality among wild salmon and sea trout.

8.22 The key sea louse species of concern is *Lepeophtheirus salmonis*. These are parasites found in the wild, which can infect farmed salmon. They feed on the fish mucus and flesh. Given the high numbers of fish in fin fish cages, the population of the lice can rapidly increase and affect both the farmed fish and infect/re-infect the wild population. In addition, numerous studies have shown that sea lice in the receiving environment tend to be higher during second years of production of a fish farm and therefore pose a greater risk to wild salmonids at that time.

8.23 For clarity, marine fish farms tend to operate on roughly two year production cycles, at the end of which all remaining fish are harvested out and the site is left fallow for several weeks or months prior to re-stocking. Once re-stocked, the lice levels are generally low for at least the first few months, then, if there is a sea lice issue in the area, the numbers can build up as the farmed fish grow bigger.

8.24 The industry's Code of Good Practice (CoGP) states that average levels of 0.5 adult female lice per fish between February and June and 1.0 adult female lice per fish between July and January should be sought. If these levels are reached or exceeded, they are the suggested criteria for sea lice treatment. Further to this, there is also a target of zero adult female lice in spring to coincide with salmon migration. The applicant's submission also states that they now set their intervention triggers at much lower levels of lice per fish than CoGP.

8.25 Following the Parliamentary committee reports on the environmental impacts of salmon farming it was proposed that site-specific data for all marine fin fish farms would be forthcoming in due course. Individual site data are now published by the SSPO as from May 2018, although these are provided with a time lag.

8.26 MSS also state that adherence to the suggested criteria for treatment of sea lice stipulated in the industry CoGP may not necessarily prevent release of substantial numbers of sea lice from aquaculture installations.

8.27 The issue here relates to the very large numbers of fish reared within the pens of a farm relative to the much smaller number of wild salmonids inhabiting and/or transiting the waters in its vicinity. The 500,000 to 750,000 fish in the farm will exceed local wild fish populations to a very large extent. Consequently, even when the numbers of sea lice per farmed fish is relatively low, the total number of adult

and planktonic sea lice entering the local receiving environment may still be many times greater than the naturally occurring 'background' level associated with the wild fish. This increases the risk of infection for wild fish to a corresponding degree including those wild salmon 'in transit' near a farm during the late spring migration.

8.28 It is clear from the Fishery Boards' consultation response that it has a particular concern that the location of this farm will have a detrimental impact upon migrating salmon (through sea lice emissions) because of its proximity to what is understood to be this specie's migratory routes through Loch Sunart including those joining it from the south via the Sound of Mull. The more general concern about the impact of sea lice emissions on local populations of wild salmonids including (non-migratory) sea trout also exists.

8.29 This issue of proximity of farms to salmon migration routes was a specific concern of the parliamentary committees. They stressed that it makes sense to maintain clear separation between the two and we know that the migration is focussed around late spring. The difficulty, however, is that there is;

i. very little data on the actual routes taken by the fish

ii. very little data about the dispersion pattern of sea lice around fish farms

Consequently, the degree of connectivity between sea lice emissions from the farm and fish transiting the area of waters containing raised levels of sea lice from the farm remains difficult to ascertain and quantify.

8.30 In this case, the sea lice dispersion analysis carried out by the applicant, albeit primarily in connection with potential impacts upon the fresh water pearl mussel SACs to the west, suggests that fish migrating along the southern Sunart coast would be much less impacted than those travelling along the northern coast. However, the lack of empirical information and research data remains.

8.31 The applicant has recognised the need to address this issue and has engaged with the Fishery Boards in drawing up a regional environmental management plan (EMP) to provide a basis for monitoring the wild salmonid population and adapting the production management of the farm in accordance with any negative impacts identified.

8.32 It must be stressed that this EMP is separate and in addition to the one submitted to specifically address the fresh water pearl mussel SAC issues. Whilst there will almost certainly be a significant degree of similarity and cross-over between the two, the submitted Loch Sunart Regional EMP aims to cover not just the MacLean's Nose farm but also those of Glencripesdale (currently non-operational), Camas Glas and Invasion Bay.

8.33 The Loch Sunart Regional EMP is in draft form only. It is understood that discussions between the applicant and the Fishery Board are continuing. It is noted that the Board has maintained its objection to this application.

8.34 However, it is considered that the wild fish monitoring element of the draft plan is the best available mechanism by which a greater understanding of the impact of these farms on wild salmon in their migratory period can be achieved. This

knowledge can be used to adaptively manage production at these farms. This might include measures to ensure that these farms are fallow for every other spring migration period – a call made by the Fishery Board in its consultation response.

8.35 Consequently, it is considered appropriate to use a condition of any permission to require the submission of this EMP for approval by the planning authority (in consultation with the Fishery Board) within three months of the grant of permission. The condition should stipulate that the wild fish monitoring include the tracking of wild salmon (the applicant is carrying out a similar project near Skye) and corresponding further analysis in respect of sea lice dispersion and any resultant connectivity between the two.

8.36 It is considered that compliance with the requirements of this regional EMP will ensure that the proposal meets the requirements of Policy 59 (Other Important Species) of the HwLDP.

Impact upon the fresh water pearl mussel SACs

8.37 As indicated above, much of the assessment of likely impacts upon the Ardnamurchan Burns Special Area of Conservation (SAC), Mingarry Burn SAC, Glen Beasdale SAC, River Moidart SAC was effectively carried out during the determination of the Isle of Muck expansion planning application. The mitigation that justified the granting of that planning permission forms a crucial part of that permission. In brief, both sea trout and salmon are host species for young fresh water pearl mussels and are critical to the long-term success of the population. Negative impacts of sea lice from these farms on the numbers of wild salmonids hosts could result in the mussel population declining correspondingly to a long-term and unsustainable degree. This would be regarded as an adverse impact on the integrity of the SAC and to be contrary to its definitive conservation objectives.

8.38 Policy 28 (Sustainable Design) of the HwLDP - identifies impact, including pollution and discharges, on habitats, species, marine systems, and particularly within designated areas as matters which must be addressed by a proposal.

8.39 Policy 57 (Natural, Built and Cultural Heritage) of the HwLDP states that developments likely to have a significant effect on a sites of international importance, either alone or in combination with other plans or projects, and which are not directly connected with or necessary to the management of the site for nature conservation will be subject to an appropriate assessment. Where the planning authority is unable to ascertain that a proposal will not adversely affect the integrity of a site, the planning authority will only allow development if there is no alternative solution and there are imperative reasons of overriding public interest, including those of a social or economic nature.

8.40 Policy 58 (Protected Species) of the HwLDP supports Policy 57 above with a presumption against proposals which are likely to have an adverse effect, individually and/or cumulatively, on European Protected Species.

8.41 SNH has made clear that it considers the likely impacts of this application on these SACs to be almost identical to those of the Isle of Muck farm and has, consequently, steered the applicant to commit to a similar package of adaptive environmental monitoring as has been approved at Muck. In reality, the two EMPs will effectively merge into one with the monitored health of the SACs being critical to the future production management and success of the two farms.

8.42 Crucially, the EMPs contain a commitment by the applicant to reduce production levels if host fish numbers decline to a level that causes an adverse effect on SAC integrity and the developer is unable to demonstrate beyond reasonable scientific doubt that the operations at the farms are not the cause.

8.43 The appropriate assessment (Appendix 2) contains all the technical and scientific analysis required to draw the above conclusions and it is not considered necessary to repeat those matters in the body of this report.

8.44 It is considered that the guidance from SNH on this matter, and the appropriate assessment, draws the same positive conclusion as the consultation advice it is based upon. The use of sea-lice dispersion modelling, wild fish numbers and health monitoring and adaptive management of sea-lice control on the farm is in accordance with national policy as quoted above at paragraph 7.1 and specifically the statement,

"...*If there is uncertainty, the potential for research, surveys or assessments to remove or reduce uncertainty should be considered…"*

It is considered necessary to specifically condition the implementation of the EMP and define its relevant documents including the revisions included in Annex B of the SNH consultation advice.

8.45 Implementation and compliance with this EMP will ensure that the requirements of Policies 28, 57 and 58 of the HwLDP are fully satisfied.

Impact upon the Inner Hebrides and the Minches SAC

8.46 SNH has identified that the proposal is likely to have a significant effect on the harbour porpoise qualifying interest of the Inner Hebrides and the Minches SAC. Consequently, the Council is required to carry out an appropriate assessment. The issue raised by this application is the potential noise disturbance to harbour porpoise from acoustic deterrence devices (ADD) installed on the farm to deter predation by seals. The site currently has permission to use one Terecos ADD device, although the application states that it has never been used. This proposal seeks to increase the number of Terecos devices available to two.

8.47 In its response on this matter to assist in the production of the appropriate assessment, SNH was able to respond that it did not believe that the ADD in this case would result in an adverse impact on site integrity (AESI) and the use of the specified equipment would therefore be acceptable in respect of the SAC. In coming to this conclusion SNH identified two key factors quoted below:

i. An ADD deployment plan has been provided which specifies the circumstances when ADDs will be used and details the review process to ensure they are switched off promptly once the predation risk has passed. This plan is appropriate for the device proposed.

ii. Terecos ADD devices have lower output levels than many of the other devices on the market and the area within which disturbance and displacement may occur is restricted to the immediate vicinity of the farm. Their use would not block passage to harbour porpoise through the Sound of Mull or add significantly to cumulative underwater noise levels.

8.48 However SNH also highlighted that the surroundings of the site are constrained waters and more powerful devices could have more pronounced effects. It continues that if the developer wished to deploy alternative devices then the prior approval from the planning authority should be sought. If higher power devices were proposed then a new assessment of the individual and cumulative impacts would be necessary.

8.49 A condition is recommended to ensure that the planning authority retains control over this matter should the applicant wish to deploy alternative devices.

8.50 As with the other SAC issues addressed above, this condition will ensure that the requirements of Policies 28, 57 and 58 of the HwLDP are fully satisfied throughout the lifetime of the permission.

Visual and landscape impact

8.51 The proposal falls within the Outer Loch Sunart and Islands Special Landscape Area (SLA). Policy 28 (Sustainable Design) of the HwLDP identifies landscape and scenery as being among the considerations that must be assessed.

8.52 Policy 57 (Natural, Built and Cultural Heritage) of the HwLDP identifies natural features of local/regional importance such as the SLA and states that the authority will allow developments if it can be satisfactorily demonstrated that they will not have an unacceptable impact on the natural environment resource (the SLA) in question.

8.53 Policy 61 (Landscape) of the HwLDP – requires proposals to be designed to reflect the landscape characteristics and special qualities identified in the Landscape Character Assessment of the area in which they are proposed. This will include consideration of the appropriate scale, form, pattern and construction materials, as well as the potential cumulative effect of developments where this may be an issue.

8.54 The Council's adopted assessment of this SLA points out that its southern shore is remote and inaccessible, meaning that public views of this farm are only really available from the northern shore. In this regard, Ben Hiant – the backdrop to this farm proposal – is specifically mentioned in respect of its prominent position and

steep cliffs. The viewpoint above Camas nan Geall to the east is also specifically mentioned, but the farm cannot be seen from this location. The analysis also suggests that fish farm design should aim to limit its visual impact.

8.55 The application is accompanied by photomontage visualisations from three viewpoints;

i. from the Kilchoan to Tobermory ferry looking north-east
ii. from Mingary Pier looking east
iii. from a position above Mingary Castle looking south-east

From the ferry and pier, the critical issue is the high degree to which the surface equipment visually merges with the dark coastal margin of the Ben Hiant cliffs. This results in very little visual impact at all. The additional cages are almost indistinguishable from the existing.

8.56 Only from the more elevated position, above Mingary Castle, is the farm seen to be slightly detached from the rocky coastline and so more visible as a set of objects within the sea. Moreover, the additional cages can be seen to extend beyond the end of Maclean's Nose giving them a greater open water visibility.

8.57 However, even from this viewpoint the overall significance of the development within the scale of the wide landscape is extremely small. This is the overall conclusion drawn by the submitted seascape and visual impact assessment within the EIA report and the case officer agrees with its conclusions. The extended farm will not have an unacceptable impact upon the SLA designation or wider landscape quality.

8.58 It is considered that the analysis contained within the EIA report coupled with the evidence presented by the visualisations shows that the requirements of Policies 28, 57 and 61 of the HwLDP are fully satisfied.

Economic impact including other fishery users

8.59 It is likely that the extension of the fish farm in the area could have a positive impact on local employment and economic activity both directly and indirectly. This is particularly important for an area falling within the HIE definition of a Fragile Area. Policy 36 (Development in the Wider Countryside) of the HwLDP states that regard should be given to the extent to which a proposal would help, if at all, to support communities in Fragile Areas in maintaining their population and services by helping to re-populate communities and strengthen services.

8.60 In their joint objection to this application the Scottish White Fish Producers Association and the Mallaig and North-West Fisherman's Association have stated that the granting of the original permission has meant that nephrop and sprat fisherman have not been able to fish in the environs of the farm. The extension will make this worse as organic and chemical wastes impact upon a wider area around the farm cages. The growth of the fish farming sector should not be coming at the expense of other fishing interests it states.

8.61 Clearly, as with any economic benefit assessment, it is necessary to consider the 'net' effect. The obvious benefits of development have to be weighed against the 'costs' which come with it, some of which are difficult to quantify. There is insufficient evidence on either side of this argument for the planning authority to come to any definitive answer and so little weight can be placed upon this consideration. It is noted that the 'right' to fish in coastal waters is effectively removed when the Crown Estates offer to lease an area to the finfish farming industry. It is not known to what extent the fishing industry is able to influence such decisions but it is suggested that this might be a more effective focus of attention.

8.62 In terms of the organic and chemical wastes created by the farm, these are controlled through SEPA's CAR license which it has stated it expects to be able to issue for this proposal. This is considered to meet the requirements of Policy 72 (Pollution) of the HwLDP which states that proposals that may result in significant pollution "…*will only be approved where a detailed assessment report on the levels, character and transmission and receiving environment of the potential pollution is provided by the applicant to show how the pollution can be appropriately avoided and if necessary mitigated*…"

Other material considerations

8.63 In respect of the Sunart SAC, SNH was able to conclude that the proposed expansion remains outwith Sunart SAC and the benthic deposition is not predicted to impact on any designated reef. Otters using the shoreline and shallow waters would be used to the existing fish farm and the proposed expansion was unlikely to increase disturbance. Consequently, the proposals were unlikely to have a significant effect on any features of the SAC and that no further consideration was required. Consequently the requirements of Policy 57 (Natural, Built and Cultural Heritage) of the HwLDP are considered to be met.

8.64 In respect of the Loch Sunart to the Sound of Jura Nature NC MPA, SNH responded that the proposal was capable of affecting the common skate protected feature of Loch Sunart to the Sound of Jura MPA. The proposal could theoretically result in a reduced availability of prey species, particularly crustaceans, in a localised area around the proposed development. It could also affect egg-laying areas of the skate locally through deposition of materials onto suitable substrate. However, the area affected would be small and within the context of the MPA as a whole these effects are insignificant. Further assessment by the planning authority was therefore not required and the criteria of Policy 57 (Natural, Built and Cultural Heritage) of the HwLDP are considered to be met.

8.65 In respect of Priority Marine Features, SNH responded that the submitted benthic surveys indicated that the seabed in this location is burrowed mud habitat, including the tall sea pen *Funiculina quadrangularis*. The fireworks anemone *Pachycerianthus multiplicatus* is also present but at low density. Both the habitat and these two species are Priority Marine Features.

8.66 However, taking into account the widespread nature of the burrowed mud habitat, the typical quality of the habitat in this location, the relatively small area affected, and the low density of *Funiculina* and *Pachycerianthus* observed; SNH was able to

advise that the proposal would have only local effects on these interests. The requirements of Policy 59 (Other Important Species) of the HwLDP are considered to be met therefore.

8.67 The applicant has indicated that it is content to accept the re-imposition of Condition 5 of the previous planning permission 14/02568/FUL which prohibits simultaneous fish farming operations at both this farm and the one operated by the applicant at Glencripesdale. A more modern wording is recommended. It is recognised that the Regional EMP will provide evidence to suggest whether this restriction remains justified or not.

Non-material considerations

8.59 None raised.

Matters to be secured by Section 75 Agreement

8.60 None

9. CONCLUSION

9.1 In respect of the impact of this proposal on migratory salmon, it is considered that a condition requiring the submission for subsequent approval by the planning authority, in consultation with SNH, Marine Scotland and the Lochaber DSFB, of the Loch Sunart Regional EMP, will address the concerns raised. As this EMP will cover all the applicant's farms in the vicinity, once implemented, it will result in a substantial quantitative and qualitative improvement in wild fish and sea lice dispersion monitoring in Loch Sunart. The feedback and control mechanisms it contains will ensure that sea lice and wild salmon interaction is minimised. The proposal is considered therefore to meet the requirements of Policy 59 (Other Important Species) of the HwLDP.

9.2 In respect of the Ardnamurchan Burns Special Area of Conservation (SAC), Mingarry Burn SAC, Glen Beasdale SAC and River Moidart SAC the Council has carried out an appropriate assessment and found that no AESI will result from this proposal. The proposal is therefore considered to meet the requirements of Policies Policy 28 (Sustainable Design), Policy 57 (Natural, Built and Cultural Heritage) and Policy 58 (Protected Species) of the HwLDP.

9.3 In respect of the Inner Hebrides and Minches SAC the Council has carried out an appropriate assessment and found that no AESI will result from this proposal. The proposal is therefore considered to meet the requirements of Policies Policy 28 (Sustainable Design), Policy 57 (Natural, Built and Cultural Heritage) and Policy 58 (Protected Species) of the HwLDP

9.4 In respect of these and the other ecological, visual and economic issues raised by the application, it is considered that all relevant matters have been taken into account when appraising this application and the requirements of Policy 28 (Sustainable Design), Policy 57 (Natural, Built and Cultural Heritage), Policy 58 (Protected Species), Policy 61 (Landscape) and Policy 72 (Pollution) of the HwLDP are satisfied.

9.5 Overall therefore, it is considered that the proposal accords with the principles and policies contained within the Development Plan and is acceptable in terms of all other applicable material considerations.

10. IMPLICATIONS

10.1 Resource: Not applicable

10.2 Legal: Not applicable

10.3 Community (Equality, Poverty and Rural): Not applicable

10.4 Climate Change/Carbon Clever: Not applicable

10.5 Risk: Not applicable

10.6 Gaelic: Not applicable

11. RECOMMENDATION

Action required before decision issued N

Subject to the above, it is recommended that planning permission be **GRANTED,** subject to the following:

Conditions and Reasons

1. The fish farm hereby approved shall not be operated other than in strict accordance with the operating, monitoring and adaptive management measures detailed in the package of Environmental Management Plan documents submitted as part of this application on the 13 November 2018 and in the Environmental Statement submitted on 26 June 2018.

   Specifically, the measures and undertakings detailed in the following documents shall be implemented in full to the satisfaction of the local planning authority in consultation with SNH;

   - EMP Annex 1 SAC Management and Monitoring Measures
   - EMP Annex 2 Statement of Operational Practices (SOP)
   - EMP Annex 3 Wild Salmonids Monitoring Plan - SAC Burns
   - EMP Annex 4 Wild Salmonids Monitoring Plan - Coastal Waters
   - EMP Annex 5 Marine Scotland Regulation of Sea Lice in Scotland

   In addition, compliance with the EMP shall include the specific wording recommendations and amendments identified in Annex B of the SNH consultation response dated 31 May 2019.

   Reason: In the interests of promoting the conservation objectives of the Ardnamurchan Burns Special Area of Conservation (SAC), the Mingarry Burn SAC, the Glen Beasdale SAC, River Moidart SAC.

2. Within three months of the date of this permission, a Loch Sunart Regional EMP shall be submitted to the planning authority for approval in writing. This document shall be closely related to the draft Regional EMP submitted as part of this application and shall, among the other matters identified, specifically address minimising the interaction between sea lice emanating from the regional farms and wild salmon during their spring migration.

Reason: To ensure that measures are followed, throughout the lifetime of the permission, to identify and mitigate the potential impacts of sea lice loading on wild salmonids in accordance with the planning authority's biodiversity duty.

3. The development and operation of the site, shall not be carried out other than in accordance with the approved two Terecos device Acoustic Deterrent Device Plan submitted and approved as part of this application, unless changes to the operation of the site dictate that the plan requires amendment. In such an eventuality, a revised Acoustic Deterrent Device Plan will require to be submitted to, and approved in writing by the planning authority. Notwithstanding such a requirement, a revised Acoustic Deterrent Device Plan shall be submitted to, and approved in writing by the planning authority every 5 years, as a minimum, following the start date, to ensure it remains up to date and in line with good practice.

Reason: To minimise the impact on the Inner Hebrides and the Minches Special Area of Conservation.

4. All surface equipment, with the exception of navigational markers, shall be finished in a dark, matt neutral colour unless alternative finishes are agreed in advance in writing with the Planning Authority. Pipes between the automated feed barge and the cages shall be neatly bundled to minimise clutter.

Reason: To minimise the visual impact of the installation on the Outer Loch Sunart and Islands Special Landscape Area .

5. All lighting above the water surface and not required for safe navigation purposes should be directed downwards by shielding. It should be extinguished when not required for the purpose for which it has been installed. If lighting is required for security purposes, infra-red lights and cameras should be used.

Reason: To minimise the visual impact of the installation on the Outer Loch Sunart and Islands Special Landscape Area .

6. In the event of equipment falling into disrepair or becoming damaged, adrift, stranded, abandoned or sunk in such a manner as to cause an obstruction or danger to navigation, the site operator shall carry out or make suitable arrangements for the carrying out of all measures necessary for lighting, buoying, raising, repairing, moving or destroying, as appropriate, the whole or any part of the equipment so as to remove the obstruction or danger to navigation.

Reason: In the interests of amenity and navigational safety.

7. At least three months prior to cessation of use of the site for fish farming, a scheme for the decommissioning and removal of all equipment shall be submitted to and agreed in writing with the Planning Authority. Upon cessation the approved scheme shall be implemented.

   Reason: To ensure that decommissioning of the site takes place in an orderly manner and to ensure proper storage and disposal of redundant equipment in the interest of amenity and navigational safety.

8. For the avoidance of doubt, unless amended by the terms of this permission, the development shall be constructed and operated in accordance with the provisions of the application, the submitted plans, and the Environmental Statement.

   Reason: In order to clarify the terms of permission

9. All plant, machinery and equipment shall be so installed, maintained and operated such that any associated operating noise does not exceed NR 20 when measured or calculated within any noise-sensitive premises with windows open for ventilation purposes. For the purposes of this condition, "noise-sensitive premises" includes, but is not necessarily limited to, any building, structure or other development the lawful use of which falls within Classes 7 (Hotels and Hostels), 8 (Residential Institutions) or 9 (Houses) of the Town and Country Planning (Use Classes) (Scotland) Order 1997 (as amended), or b) is as a flat or static residential caravan.

   Reason: In order to safeguard the amenity of neighbouring properties and occupants.

10. No positioning of any cages, or any operation of the fish farm hereby approved, shall take place, other than when the farmed fish biomass tonnage at the Glencripesdale farm site (granted planning permission by the Highland Council on 13th February 2012 under reference 11/03437/FUL) equals zero.

    Reason: To ensure that the cumulative impact of fin-fish farm development on the marine environment in Loch Sunart can be effectively managed and controlled by the Planning Authority.

REASON FOR DECISION

TIME LIMIT FOR THE IMPLEMENTATION OF THIS PLANNING PERMISSION

In accordance with Section 58 of the Town and Country Planning (Scotland) Act 1997 (as amended), the development to which this planning permission relates must commence within THREE YEARS of the date of this decision notice. If development has not commenced within this period, then this planning permission shall lapse.

FOOTNOTE TO APPLICANT

Initiation and Completion Notices

The Town and Country Planning (Scotland) Act 1997 (as amended) requires all developers to submit notices to the Planning Authority prior to, and upon completion of, development. These are in addition to any other similar requirements (such as Building Warrant completion notices) and failure to comply represents a breach of planning control and may result in formal enforcement action.

1. The developer must submit a Notice of Initiation of Development in accordance with Section 27A of the Act to the Planning Authority prior to work commencing on site.

2. On completion of the development, the developer must submit a Notice of Completion in accordance with Section 27B of the Act to the Planning Authority.

Copies of the notices referred to are attached to this decision notice for your convenience.

Accordance with Approved Plans and Conditions

You are advised that development must progress in accordance with the plans approved under, and any conditions attached to, this permission. You must not deviate from this permission without consent from the Planning Authority (irrespective of any changes that may separately be requested at the Building Warrant stage or by any other Statutory Authority). Any pre-conditions (those requiring certain works, submissions etc. prior to commencement of development) must be fulfilled prior to work starting on site. Failure to adhere to this permission and meet the requirements of all conditions may invalidate your permission or result in formal enforcement action

Construction Hours and Noise-Generating Activities

You are advised that construction work associated with the approved development (incl. the loading/unloading of delivery vehicles, plant or other machinery), for which noise is audible at the boundary of the application site, should not normally take place outwith the hours of 08:00 and 19:00 Monday to Friday, 08:00 and 13:00 on Saturdays or at any time on a Sunday or Bank Holiday in Scotland, as prescribed in Schedule 1 of the Banking and Financial Dealings Act 1971 (as amended).

Work falling outwith these hours which gives rise to amenity concerns, or noise at any time which exceeds acceptable levels, may result in the service of a notice under Section 60 of the Control of Pollution Act 1974 (as amended). Breaching a Section 60 notice constitutes an offence and is likely to result in court action.

If you wish formal consent to work at specific times or on specific days, you may apply to the Council's Environmental Health Officer under Section 61 of the 1974 Act. Any such application should be submitted after you have obtained your Building Warrant, if required, and will be considered on its merits. Any decision

taken will reflect the nature of the development, the site's location and the proximity of noise sensitive premises. Please contact env.health@highland.gov.uk for more information.

Protected Species – Halting of Work

You are advised that work on site must stop immediately, and Scottish Natural Heritage must be contacted, if evidence of any protected species or nesting/breeding sites, not previously detected during the course of the application and provided for in this permission, are found on site. For the avoidance of doubt, it is an offence to deliberately or recklessly kill, injure or disturb protected species or to damage or destroy the breeding site of a protected species. These sites are protected even if the animal is not there at the time of discovery. Further information regarding protected species and developer responsibilities is available from SNH: www.snh.gov.uk/protecting-scotlands-nature/protected-species

Signature:	David Mudie
Designation:	Area Planning Manager – South
Author:	Mark Harvey
Background Papers:	Documents referred to in report and in case file.
Relevant Plans:	Plan 1 - Site Location - Figure 1
	Plan 2 - Existing and Proposed Infrastructure - Figure 3
	Plan 3 - Site Layout detail – Figure 4
	Plan 4 - Elevations – Site Configuration – Figure 1
	Plan 5 - Plan and Elevations – Figure 3
	Plan 6 - Plan and Elevation – Feed System Design – Figure 4

Appendix 2: Appropriate Assessment

Freshwater Pearl Mussel Special Areas of Conservation

Increase number of fin fish pens from 12 to 16 at established fish farm, Application accompanied by EIA

18/02922/FUL

Site At Maclean's Nose, Loch Sunart, Acharacle

CONSIDERATION OF PROPOSALS AFFECTING EUROPEAN SITES

The status of Ardnamurchan Burns Special Area of Conservation (SAC), the Mingarry Burn SAC, the Glen Beasdale SAC, River Moidart SAC under the EC Directive 92/43/EEC, the 'Habitats Directive', means that the Conservation (Natural Habitats, etc.) Regulations 1994 (as amended) apply. .

The above means that where the conclusion reached by the Council on a development proposal unconnected with the nature conservation management of a Natura 2000 site is that it is likely to have a significant effect on those sites, it must undertake an Appropriate Assessment of the implications for the conservation interests for which the areas have been designated. The need for Appropriate Assessment extends to plans or projects out with the boundary of the site in order to determine their implications for the interest protected within the site.

This means that the Council, as competent authority, has a duty to:

- Determine whether the proposal is directly connected with or necessary to site management for conservation; and, if not,
- Determine whether the proposal is likely to have a significant effect on the site either individually or in combination with other plans or projects; and, if so, then
- Make an Appropriate Assessment of the implications (of the proposal) for the site in view of that site's conservation objectives.

The competent authority can only agree to the proposal after having ascertained that it will not have an adverse effect on the integrity of the sites (AESI). If this is not the case and there are not alternative solutions, the proposal can only be allowed to proceed if there are imperative reasons of overriding public interest, which in this case can include those of a social or economic nature.

Screening in Likely Significant Effects

It is evident that the proposal is not connected with or necessary to site management for conservation, hence further consideration is required. The proposed fish farm has the potential to have a likely significant effect on the qualifying interests, both alone and in-combination with other nearby fish farms due to impacts from sea lice on wild salmonids and/or genetic introgression from fish escapes from the farm(s). The Council is therefore required to undertake an Appropriate Assessment of the implications of the proposal for the four SACs: the Ardnamurchan Burns, the Mingarry Burn SAC, the Glen Beasdale SAC and the River Moidart SAC, in view of the various sites conservation objectives. The only

qualifying feature considered for the Glen Beasdale SACs is the FWPM as it is very unlikely there would be any significant effect on the other qualifying feature (Otter: *Lutra lutra*) of this SAC, or to the proposed Glen Beasdale SAC extension, therefore these other qualifying features are hereby screened out.

APPROPRIATE ASSESSMENT

While the responsibility to carry out the Appropriate Assessment rests with the Council, advice contained within Circular 6/1995 is that the assessment can be based on the information submitted from other agencies. In this case, the Appropriate Assessment is informed by information supplied by SNH, the applicant and various published information, including those as referenced.

In its response to the Council (dated 31 May 2019) SNH has advised the proposal is likely to have a significant effect on the freshwater pearl mussel in all four of the SACs. However, they stated that,

"…we advise that in our view on the basis of the information provided, if the proposal is undertaken strictly in accordance with the following mitigation, then the proposal will not adversely affect the integrity of the sites.

An Environmental Management Plan should be agreed by the planning authority in consultation with SNH and, where relevant, other statutory bodies. This should include:

1. Monitoring of the wild salmonids in the SAC rivers on an annual basis using methodologies compatible with Marine Scotland sampling protocols.

2. Monitoring of sea lice numbers on wild salmonids in coastal waters at suitable locations, ideally close to the SACs.

3. Monitoring of sea lice numbers and recording of any associated treatments on the fish farm.

4. Annual submission of results to the local authority and other relevant bodies as well as an end of production cycle review process.

5. Details of actions that will be taken should the planning authority, following advice from specialists, confirm that intervention is needed to prevent an adverse effect on the integrity of the SAC(s). This should include details of all sea lice reduction

methods which will be available for use at this farm as well as criteria for early harvesting or other means of reducing biomass…"

SNH pointed out that much of this information has been submitted as part of the planning application and related closely to on-going work between SNH, the applicant and the local fishery board associated with almost identical issues relating to the approved expansion of the Isle of Muck farm.

Appraisal Summary

The key points drawn from these extensive discussions are;

- Salmonids are a key part of the FWPM life cycle. For most of the first year of their life, a larval freshwater pearl mussel lives on the gills of a juvenile Atlantic salmon or brown trout.
- The distribution and viability of wild salmonids is critical to achieving the conservation objectives of the SAC.

- Extended and/or prolonged declines in salmonid numbers could effect FWPM ability to recruit and therefore mean the competent authority could not be sure there was no AESI
- There is now a significant volume of correlative and circumstantial evidence that large numbers of farm-origin sea lice have adverse effects on wild Atlantic salmon smolts and sea trout. It should be acknowledged that the subject remains controversial with different studies providing evidence of varying levels of impact.
- The current status of all four SACs is unfavourable with some static and some recovering
- Recent survey work on the SACs demonstrates that, for all four SACs, the reasons they are currently in unfavourable condition are for reasons other than the status of the fish population. Evidence shows that salmonid populations are currently sufficient for the pearl mussels to complete their lifecycle. While fish populations are critical to pearl mussels' successfully completing their lifecycle, there are more significant pressures exerting themselves on each pearl mussel population at present.
- Early outputs from dispersion modelling conducted by Marine Harvest Scotland, which reflect the recognised northwest-ward flow of the Scottish Coastal Current, predict that on average sea lice will disperse to the north of the island of Muck and away from the four above SACs. So, although there is relatively little information on the precise movement of sea trout in these coastal waters, the northward dispersion of sea lice will reduce the potential interaction between sea trout and/or salmon migrating from the SACs. This provides reassurance that there will be reduced interactions between sea lice emanating from Muck fish farm and sea trout migrating to and from the SAC.
- The longevity and life cycle of fresh water pearl mussel mean that short term declines on salmonids (seasonal variation for example) will not lead to adverse effect on site integrity. This is because freshwater pearl mussels within Scottish rivers can live for more than 100 years. It is reasonable to expect female pearl mussels to be reproducing in most years after they reach sexual maturity (after about age 10-15). In recruiting populations, subject to few or no pressures, evidence can be seen of variable or episodic recruitment through time (i.e. variation in the size/age profile of the population) (e.g. Cosgrove et al., 2014). Therefore, as there can be variable success in pearl mussel recruitment under natural conditions, then it is clear that they are able to withstand relatively short term fluctuation in recruitment success (e.g. 1-2 years), without adverse effect, provided they are not extended. Extended and/or prolonged declines in salmonid numbers could affect FWPM ability to recruit and therefore mean the competent authority could not be sure there was no AESI.
- Overall, it is concluded that measures to control and manage sea lice within the proposed development, alongside the distance from the SACs and the buffering provided by the longevity of the pearl mussel lifecycle all mean that the risks from the development are reduced. However there are uncertainties (e.g. the specific coastal areas favoured by the SAC sea trout) and residual risks (e.g. maintaining low lice numbers on farmed fish in the future).
- In order to prevent the residual risks posing an adverse effect on site integrity 'beyond all reasonable scientific doubt' it is necessary to implement an environmental management plan that ensures the SACs are monitored and any

potential short-term impacts detected and addressed to protect the long term conservation objectives of the SACs.

HIGHLAND COUNCIL APPRAISAL OF THE PROPOSAL

- The proposal is not directly connected with or necessary to site management for conservation;
- The proposal is likely to have a significant effect on the site either individually or in combination with other plans or projects; therefore;
- An Appropriate Assessment of the implications (of the proposal) for the site in view of that site's conservation objectives is provided below.
-

Interests of European Importance: the Qualifying SACs

Table 1: The qualifying interest for which the sites are designated is freshwater pearl mussel (FWPM) (*Margaritifera margaritifera*). The SACs are:

FWPM SAC	**Approx. distance/location from proposal**	**Latest Assessed Condition/Summary condition*; Date**
1. Ardnamurchan Burns	<11 km SSW	Unfavourable Declining/Unfavourable; 19/09/2012
2. Mingarry Burn	c. 24.5 km S	Unfavourable Recovering/Favourable; 22/08/2014
3. Glen Beasdale	c. 26km E	Unfavourable No change/Unfavourable; 09/09/2014
4. River Moidart	c.29 km SE	Unfavourable No change/Unfavourable; 08/09/2014

Table 2: The conservation objectives for SAC are (key one highlighted):

Conservation objectives (in relation to FWPM)	**Applies to SAC: Y/N**			
	1. Ardnamurchan Burns	2. Mingarry Burn	3. Glen Beasdale	4. River Moidart
To avoid deterioration of the habitats qualifying species [FWPM] 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	Yes	Yes	Yes	Yes
To ensure for the qualifying species that the following are maintained in the long term:				
• Population of the species as a viable component of the site	Yes	Yes	Yes	Yes
• Distribution of the species within site	Yes	Yes	Yes	Yes
• Distribution and extent of habitats supporting the species	Yes	Yes	Yes	Yes

• Structure, function and supporting processes of habitats supporting the species	Yes	Yes	Yes	Yes
• No significant disturbance of the species	Yes	Yes	Yes	No
• **Distribution and viability of species' host species**	**Yes**	**Yes**	**Yes**	**Yes**
• Structure, function and supporting processes of habitats supporting species' host species	Yes	Yes	Yes	Yes

Figure 1: Location of proposed fish farm modification (blue) in relation to the four FWPM SACs (red).

Freshwater Pearl Mussel

The freshwater pearl mussel (FWPM) *Margaritifera margaritifera* is protected by the SAC status and under Schedule 5 of the Wildlife and Countryside Act (1981). It is classified as critically endangered on the IUCN Red List of Endangered Species due to its unprecedented, worldwide decline during the latter part of the 20th Century[1]. They are on the brink of extinction; Scotland's rivers are a global stronghold for the species, containing around half of the world's population[2]. Many factors have contributed to the decline including pearl fishing, water pollution, siltation, declines in host fish populations[3] and fish

[1] https://www.fba.org.uk/pearl-mussels

[2] http://www.gov.scot/Topics/Environment/Wildlife-Habitats/paw-scotland/types-of-crime/fresh-water-pearl-mussels

[3] https://www.fba.org.uk/pearl-mussels

farm effluent (Young *et al* 2000, in SNH, 2003). More recently, the impacts of sea lice on wild salmonids is also likely to be a key issue, as highlighted by the SNH requirement for monitoring of wild salmonids i.e. the FWPM host species, as discussed below.

The freshwater pearl mussel has a very long life-span, commonly reaching ages of over 130 years (Bauer, 1992) and individuals inhabit oligotrophic (nutrient-poor) rivers with clean, well oxygenated gravels[4]. *M. margaritifera* has a very interesting and complex life cycle which requires a host fish for their larvae (glochidia) [5]. Their first year of life is spent harmlessly attached to the gills of young salmon or trout before they drop off to settle on the river bed. It is an offence to intentionally or recklessly kill, injure, take or disturb freshwater pearl mussels or to damage their habitat[6]. Mussels are normally dioecious (have separate sexes). Male mussels release sperm into the water column in June – July (depending upon water temperature). Sperm is inhaled by the female mussels to fertilise their eggs. Glochidia are released into the water column between July and September (temperature dependent). A single female can release 4 - 16 million glochidia per year, each measuring 60-70µm in length (Young and Williams, 1984). Glochidia require a salmonid fish host (Atlantic salmon, *Salmo salar* or brown/sea trout, *S. trutta* in the UK) for the next stage in their development. Glochidia are inhaled by the host and, as water passes over the fish's gills, the glochidia snap shut onto the gill filaments. Glochidia become encysted within the gill tissue and grow there until the following spring when they drop off the fish in May or early June. At this point they measure approximately 400µm in length. Juveniles must land in clean, well oxygenated gravel substrates where they will burrow into the interstices to continue their development[7].

Originally widely distributed throughout Scotland, a comprehensive survey from 1996 to 1999 revealed that the FWPM is now extinct in most of the lowlands and scarce everywhere except a handful of Highland rivers (SNH, 2003). The 'Pearls in Peril' project, which ran from 2012 to March 2017, aimed to save and restore populations in 21 sites across Scotland, England and Wales. Nineteen of the 21 rivers across Britain involved in the project are in Scotland. All 21 rivers are Special Areas of Conservation[8]. In Scotland, these are the Rivers Dee, South Esk, Spey, Evelix, Naver, Borgie, Oykel, Fionaven, Abhainn Clais an Eas, Allt a'Mhuilinn, Ardvar and Loch a'Mhuilinn Woodlands, Inverpolly, **Moidart**, Kerry, **Glen Beasdale**, **Ardnamurchan Burns**, Rannoch Moor, North Harris, Moriston and **Mingarry Burn**[9]. However, advice from SNH notes this was more of a social project with little to add to the Appropriate Assessment. Nonetheless, as the status of the FWPM in the various SACs considered in this assessment are generally in a poor state, a relatively small additional impact from either sea lice or introgression could be likely to lead to an adverse effect on site integrity (AESI), as discussed below.

[4] https://www.fba.org.uk/pearl-mussels

[5] https://www.fba.org.uk/pearl-mussels

[6] http://www.gov.scot/Topics/Environment/Wildlife-Habitats/paw-scotland/types-of-crime/fresh-water-pearl-mussels

[7] https://www.fba.org.uk/pearl-mussels

[8] https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/protected-species/life-nature-and-biodiversity-projects/pearls-peril

[9] https://www.pearlsinperil.scot/Rivers

Sea lice

The key sea louse species of concern is *Lepeophtheirus salmonis*. These are parasites found in the wild, which can infect farmed salmon. They feed on the fish mucus and flesh. Given the high numbers of fish in fin fish cages, the population of the lice can rapidly increase and affect both the farmed fish and infect/re-infect the wild population. The extra 1,000 tonnes (40% increase) of fish proposed for the associated application (data on actual numbers are not available), in combination with the existing fish farm and any others in the vicinity, would act as additional hosts for sea lice.

The industry's Code of Good Practice (CoGP) states that average levels of 0.5 adult female lice per [farmed] fish between February and June and 1.0 adult female lice per fish between July and January should be sought. This therefore equates to an average of 0.79 adult female lice per annum. If these levels are reached or exceeded, they are the suggested criteria for sea lice treatment.

MSS state that adherence to the suggested criteria for treatment of sea lice stipulated in the industry CoGP may not necessarily prevent release of substantial numbers of sea lice from aquaculture installations.

Any fish farm operating at or around CoGP levels will release a relatively constant flow of sea-lice, at various stages of development, into the surrounding environment. The critical issue here is not the actual numbers of sea-lice released but, rather, their numbers relative to 'natural' or pre-development background levels. Notwithstanding inputs from other nearby farms (see below), these levels are set by the numbers of fish within the farm. This proposal, at 3500 tonnes of biomass, will hold more than 750,000 fish. Recent discussions with Fish Management Scotland have confirmed that this is likely to be many times greater than the wild salmonids resident in or migrating through the 35km zone of effect identified by SNH.

It is this factor which justified the planning authority requesting further advice from SNH and further EMP information from the applicant.

Cumulative Impacts

There are other fish farms in the general vicinity which could add additional sea-lice burden to the above identified pressures on the SAC host fish. However, the fundamental point here is that these farms are already operational and have been for a number of years. They are likely to make some contribution to the background level of sea-lice in waters frequented by the SAC host fish. However, the evidence presented by SNH is that host fish numbers in resent surveys are sufficient to meet the threshold for fish required to support recruitment despite any negative impacts from existing fish farms.

Introgression

In addition to the above, problems with introgression could also impact the host wild salmonids if there were escaped farmed fish. Given the more open location of the proposal, along with the existing site, escapes due to e.g. storm damage, are a realistic risk but the likely effects are unknown. The long-term consequences of introgression is expected to lead to changes in life-history traits, reduced population productivity and decreased resilience to future challenges (Glover *et al*, 2017). Given the potential impacts could be on all or any one of the four SACs or combination therefore, this is an added potential burden. The number of other finfish sites in the vicinity of the SACs that could add further to the escapes risk, thus the cumulative impacts are an additional consideration. However, current evidence would suggest that these risks are low and could not be considered likely to result in AESI.

Conclusion

Given the conservation objectives include the requirement to ensure the distribution and viability of the FWMP host species and the structure, function and supporting processes of habitats supporting the FWPM host spices are maintained in the long term, as set out in Table 2 above, there are strong reasons for concern that the increased fish numbers on the farm proposed could result in AESI.

However, the advice from SNH identifies that host-fish numbers in the SAC burns are currently sufficient for FWPM recruitment, distance and sea-lice dispersion is likely to mitigate impacts on host fish and that the buffering effect provided by the longevity of the FWPM protects it from short-term declines in host-fish numbers.

More significantly, SNH are confident that the very real risk of AESI from a prolonged decline in host fish numbers can be avoided through the adaptive management available from an environmental management plan based upon host fish monitoring, sea-lice dispersion monitoring and a commitment from the applicant to take appropriate action, as required by the planning authority under advice by SNH, to alleviate and mitigate identified negative impacts on the SACs over the lifetime of the farm operations.

Decision

On the basis of this appraisal, it is concluded that the proposal will not have an adverse effect on the integrity of Ardnamurchan Burns Special Area of Conservation (SAC), the Mingarry Burn SAC, the Glen Beasdale SAC and the River Moidart SAC.

References

Glover, K.A. *et al* (2017) Half a century of genetic interaction between farmed and wild Atlantic salmon: Status of knowledge and unanswered questions. Fish and Fisheries, **18**, 5, 890-927.

Middleman, S.J., Fryer, R.J. Fryer, Tulett, D. and Armstrong, J.D. (2013) Relationship between sea lice levels on sea trout and fish farm activity in western Scotland. Fisheries Management and Ecology, 20, 68-74.

SNH (2003) Ecology of the Freshwater Pearl Mussel *Margaritifera margaritifera* Conserving Natura 200 Rivers, Ecology Series No. 2.

Appendix 3: Appropriate Assessment

Harbour Porpoise
Special Area of Conservation

Increase number of fin fish pens from 12 to 16 at established fish farm, Application accompanied by EIA

18/02922/FUL

Site At Maclean's Nose, Loch Sunart, Acharacle

CONSIDERATION OF PROPOSALS AFFECTING EUROPEAN SITES

The status of the Inner Hebrides and the Minches Special Area of Conservation under the EC Directive 92/43/EEC, the 'Habitats Directive', means that the Conservation (Natural Habitats, etc.) Regulations 1994 (as amended) apply.

The above means that where the conclusion reached by the Council on a development proposal unconnected with the nature conservation management of a Natura 2000 site is that it is likely to have a significant effect on those sites, it must undertake an Appropriate Assessment of the implications for the conservation interests for which the areas have been designated. The need for Appropriate Assessment extends to plans or projects out with the boundary of the site in order to determine their implications for the interest protected within the site.

This means that the Council, as competent authority, has a duty to:

- Determine whether the proposal is directly connected with or necessary to site management for conservation; and, if not,
- Determine whether the proposal is likely to have a significant effect on the site either individually or in combination with other plans or projects; and, if so, then
- Make an Appropriate Assessment of the implications (of the proposal) for the site in view of that site's conservation objectives.

The competent authority can only agree to the proposal after having ascertained that it will not have an adverse effect on the integrity of the sites (AESI). If this is not the case and there are not alternative solutions, the proposal can only be allowed to proceed if there are imperative reasons of overriding public interest, which in this case can include those of a social or economic nature.

Screening in Likely Significant Effects

It is evident that the proposal is not connected with or necessary to site management for conservation, hence further consideration is required. The proposed fish farm has the potential to have a likely significant effect on the qualifying interests, both alone and in-combination with other nearby fish farms due to impacts from sea lice on wild salmonids and/or genetic introgression from fish escapes from the farm(s). The Council is therefore required to undertake an Appropriate Assessment of the implications of the proposal for the Inner Hebrides and the Minches SAC, due to the potential for the proposed fish farm to have a likely significant effect on the qualifying interests, both alone and in-combination with other nearby fish farms as a result of impacts from underwater noise produced by its acoustic deterrent devices.

APPROPRIATE ASSESSMENT

While the responsibility to carry out the Appropriate Assessment rests with the Council, advice contained within Circular 6/1995 is that the assessment can be based on the information submitted from other agencies. In this case, the Appropriate Assessment is informed by information supplied by SNH, the applicant and various published information, including those as referenced.

In its response to the Council (dated 31 May 2019) SNH has advised the proposal is likely to have a significant effect on the harbour porpoise in the Inner Hebrides and the Minches SAC. However, they state that;

"…in our view, based on the information provided, the proposal will not adversely affect the integrity of the site. The appraisal we carried out considered the impact of the proposals on the following factors:

- *The site currently has permission to use one Terecos ADD device, although the application states that it has never been used. This proposal seeks to increase the number of Terecos devices available to two.*
- *An ADD deployment plan has been provided which specifies the circumstances when ADDs will be used and details the review process to ensure they are switched off promptly once the predation risk has passed. This plan is appropriate for the device proposed.*
- *Terecos ADD devices have lower output levels than many of the other devices on the market and the area within which disturbance and displacement may occur is restricted to the immediate vicinity of the farm. Their use would not block passage to harbour porpoise through the Sound of Mull or add significantly to cumulative underwater noise levels.*
- *We would like to highlight that these are constrained waters and more powerful devices could have more pronounced effects. If the developer wishes to deploy alternative devices then prior approval from you should be sought. If higher power devices were proposed then new assessment of the individual and cumulative impacts would be necessary. We recommend that you consider whether it is necessary to impose a condition to that effect…"*

HIGHLAND COUNCIL APPRAISAL OF THE PROPOSAL

- The proposal is not directly connected with or necessary to site management for conservation;
- The proposal is likely to have a significant effect on the site either individually or in combination with other plans or projects; therefore;
- An Appropriate Assessment of the implications (of the proposal) for the site in view of that site's conservation objectives is provided below.

Interests of European Importance – the Inner Hebrides and the Minches SAC

The qualifying interest for which the site is porpoise. The SAC is the largest protected area in Europe for harbour porpoise and covers over 13,800 km2 and supports over 5000 individuals.

Table 1. Protected features and condition for the Inner Hebrides and the Minches SAC. Feature condition refers to the condition of the protected feature assessed at a site level. Broader conservation status is the overall condition of the feature throughout its range as outlined by the *.

Protected Features	Feature condition	Assessment date	Broader conservation status*
Harbour porpoise	Favourable	2018	UK: Favourable European region: Favourable

The conservation objectives for the SAC are:

Harbour porpoise species are in favourable condition at Inner Hebrides and the Minches SAC and therefore the Conservation Objectives seek to *maintain* this condition.

6 Feature sensitivity

The harbour porpoise is a wide ranging species and occurs across the continental shelf. They also occur in deeper waters but in very low densities, and perhaps only seasonally. Harbour porpoise on the continental shelf, particularly those in coastal waters, are exposed to a wide range of pressures that are both ubiquitous (e.g. pollution) and patchy (e.g. entanglement). Harbour porpoise are considered sensitive to:

- Removal of non-target and target species (i.e. entanglement of harbour porpoises in fishing gears and removal of their prey species).
- Contaminants (e.g. through effects on water quality and bioaccumulation of contaminants that in turn affects the survival and productivity rates of harbour porpoises).
- Underwater noise (e.g. from acoustic surveys).
- Death or injury by collision (predominantly in relation to collision with various types of fast moving vessels from commercial shipping to personal leisure craft and potentially from tidal turbines).

These four pressures were used as the basis for undertaking our assessment of risk in terms of achieving the Conservation Objectives for harbour porpoise. Further information on feature sensitivity can be found in the UK Dolphin and Porpoise Conservation Strategy. Marine Scotland's Feature Activity Sensitivity Tool (FEAST)[3] is currently being updated to include mobile species. Our assessment of sensitivity is based on a feature's tolerance (response to change) and its ability to recover.

Annex 1. Inner Hebrides and the Minches SAC Conservation Objectives

The box below provides the high-level Conservation Objective statements for the Inner Hebrides and the Minches SAC. The full Conservation Objectives, which includes site-specific advice and information on the features that form part of this MPA, are provided in the tables that follow. A definition of the terms used is in the Glossary (Annex 4).

A map of the MPA, areas of relevance to the Conservation Objectives, including the the West Scotland Management Unit and the Atlantic Biogeographic region are provided in Figure 2. Figure 3 in Annex 4 shows the areas of predicted sandeel habitat and herring spawning grounds of relevance to Conservation Objective 2c.

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

2b. The distribution of harbour porpoise throughout the site is maintained by avoiding significant disturbance.
This objective seeks to ensure that harbour porpoise can continue to use and have access to all areas of the site by avoiding significant disturbance. Harbour porpoise are widely distributed throughout the Inner Hebrides and the Minches SAC. They are found throughout the Minches and the Sea of the Hebrides, as well as in the sea lochs, bays and sounds. Harbour porpoise prefer water depths of less than 200m and the majority of the Inner Hebrides and the Minches SAC is shallower than this. There is a mosaic of substrate types within the site with sand, mud and coarse sediments dominating in different areas. The variety of sediments within the site and the prey species they support provide a productive foraging area throughout the SAC. Harbour porpoise are present throughout the year with May – August being important for breeding and calving. Adults with juveniles or calves have also been reported throughout the site. There may be other seasonal, inshore movements of large aggregations of animals that are thought to be due to changes in prey distribution. Disturbance of harbour porpoise generally, but not exclusively, arises from activities that cause underwater noise. Responses to noise can be physiological and/or behavioural. Disturbance is a behavioural response to noise and may lead to harbour porpoises being displaced from the affected area. The type of disturbance, its duration and the area over which harbour porpoise are likely to be impacted are important considerations in any assessment of disturbance. Interpretation of 'significant disturbance' will depend on the context, including the information that is provided through the plan or project, and is then subject to the appraisal to assess risk. It should be interpreted to mean disturbance that affects the

integrity of the site through alteration of the distribution of harbour porpoise within the SAC such that recovery cannot be expected or effects can be considered long term. The effects of plans or projects that last beyond the average generation time of harbour porpoise are more likely to constitute significant disturbance and to have an impact on site integrity. It is expected that significant disturbance will lead to more than a transient effect on the distribution of harbour porpoise. It may result in the following effects:

- Contributes to the long-term decline in the use of the site by harbour porpoise.
- Changes to the distribution of harbour porpoise on a continuing or sustained basis.
- Changes to harbour porpoise behaviour such that it reduces the ability of the species to survive, breed or rear their young.

For example, a localised, short term disturbance away from the coast may not be considered to cause levels of disturbance that would raise concern, whereas continual disturbance in a sea loch or sound may do.

The factors limiting recovery in terms of the distribution of harbour porpoise within the site include, the timing and duration of the activity (e.g. summer months when calving is thought to occur), and the ability of harbour porpoise to still access sufficient food whilst they are subject to disturbance. These factors are described in more detail in 'Factors limiting recovery' at the end of this document.

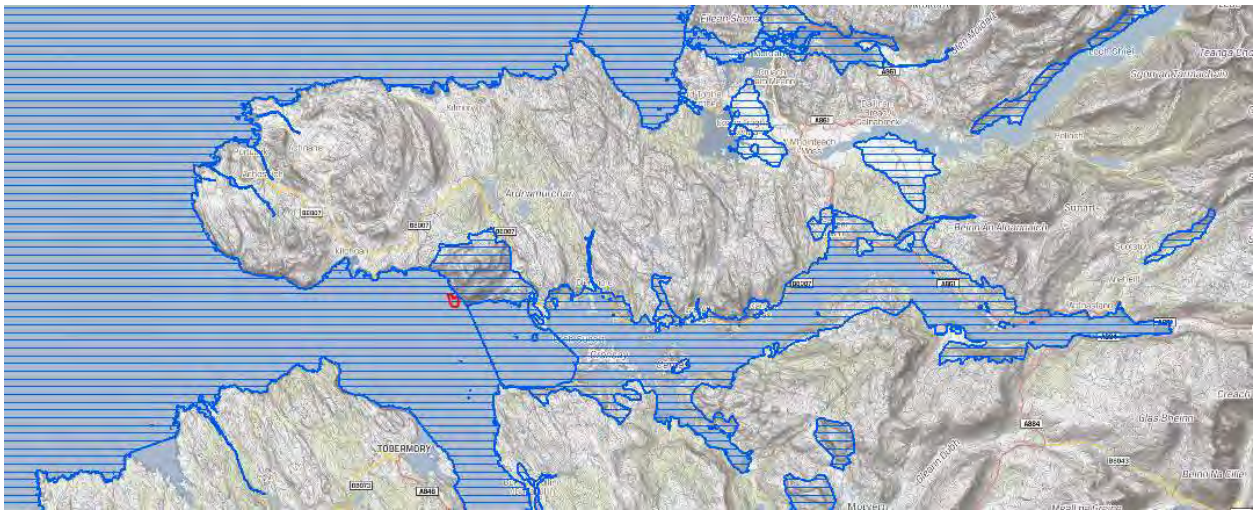
In relation to environmental change, this site was selected because it has above average densities of harbour porpoises, persistent over a number of years (SNH 2016). The modelled density data used for site designation indicates that there have been localised changes in the relative densities of harbour porpoise within the site boundary over time (1994 to 2011), but overall the site has had persistently above average densities of the species (Heinänen & Skov 2015, SNH 2016). The modelled density data also indicates that the distribution of relative high density areas within the site has been consistent between 1994 and 2011. Harbour porpoise have a high metabolism and therefore need to feed for a large majority of their time, and so are likely to be more abundant where sufficient prey sources are available. Under climate change sea temperatures are predicted to increase. Harbour porpoise is a widely distributed species and not physically constrained by water temperatures which means they are less likely to be directly affected. However, several of their prey species are sensitive to water temperature and may move to more suitable areas as sea temperatures increase. Harbour porpoise will likely follow the shifting distribution of their prey species, providing the abundance does not decline significantly. This could result in a change in the distribution of harbour porpoise in the site over time.

Disturbance of harbour porpoise is also covered by the provisions within European Protected Species legislation and is defined as it applies in Scottish waters in Marine Scotland's guidance on The protection of marine European Protected Species from injury and disturbance (Marine Scotland, 2014). These definitions are used for assessing applications for EPS licences. This process includes consideration of whether the plan/project will be detrimental to the maintenance of the species population at Favourable Conservation Status (FCS). When assessing applications for EPS licences within the West Scotland Management Unit consideration should be given to whether deliberate and reckless disturbance could affect the distribution of harbour porpoise and therefore site integrity, and subsequently contribution to FCS.

Annex 2. SNH's advice to support management for Inner Hebrides and the Minches SAC for activities which are considered capable of affecting harbour porpoise.

Where a cell is coloured grey this indicates that management is already in place and/or no additional management is considered to be required to achieve the Conservation Objectives. The potential for cumulative effects (e.g. related to noise, disturbance and collision) needs to be taken into account. An * has been used to highlight those activities to which the advice under *Boat use associated with both commercial and recreational activities* also applies.

Activities considered capable of affecting the protected features	Advice to support management
	Harbour Porpoise
Aquaculture*	**Reduce or limit pressures** Minimise the risk of disturbance[7] to harbour porpoise relating to the use of ADDs at finfish aquaculture sites. This should include adoption of existing best practice[8] e.g. development of ADD deployment plans as part of the licence process. These plans should include consideration of the potential for cumulative impacts of noise. In areas of higher cumulative risk (e.g. areas with larger numbers of fish farms within straits, sounds and embayments where ADD use may restrict access) a more restricted use of ADDs should be considered.



Extent of the SAC relative to the proposal (red box)

ADD Use

The critical issue in this assessment is the definition of ‘significant disturbance’. Significant disturbance would be regarded as very likely to result in an Adverse Impact on Site Integrity (AESI) and a failure achieve the conservation objectives of the SAC designation.

In this case the supporting information above and SNH’s consultation advice both stress that AESI in this case would be considered to have occurred if a continuous or sustained change to the distribution of harbour porpoise were seen to have occurred i.e. significant disturbance.

The Council agrees with SNH that the combination of the Terecos equipment and a condition to ensure alternative equipment is assessed before deployment is unlikely to result in significant disturbance or result in AESI in respect of the SAC.

Conclusion

The proposed development is unlikely to result in an adverse effect on site integrity so long as ADD usage is made the subject of a condition ensuring that any changes to the equipment or usage plan are agreed in writing by the planning authority (in consultation with SNH)

Decision

On the basis of this appraisal, it is concluded that the proposal will not have an adverse effect on the integrity of the Inner Hebrides and the Minches Special Area of Conservation (SAC).

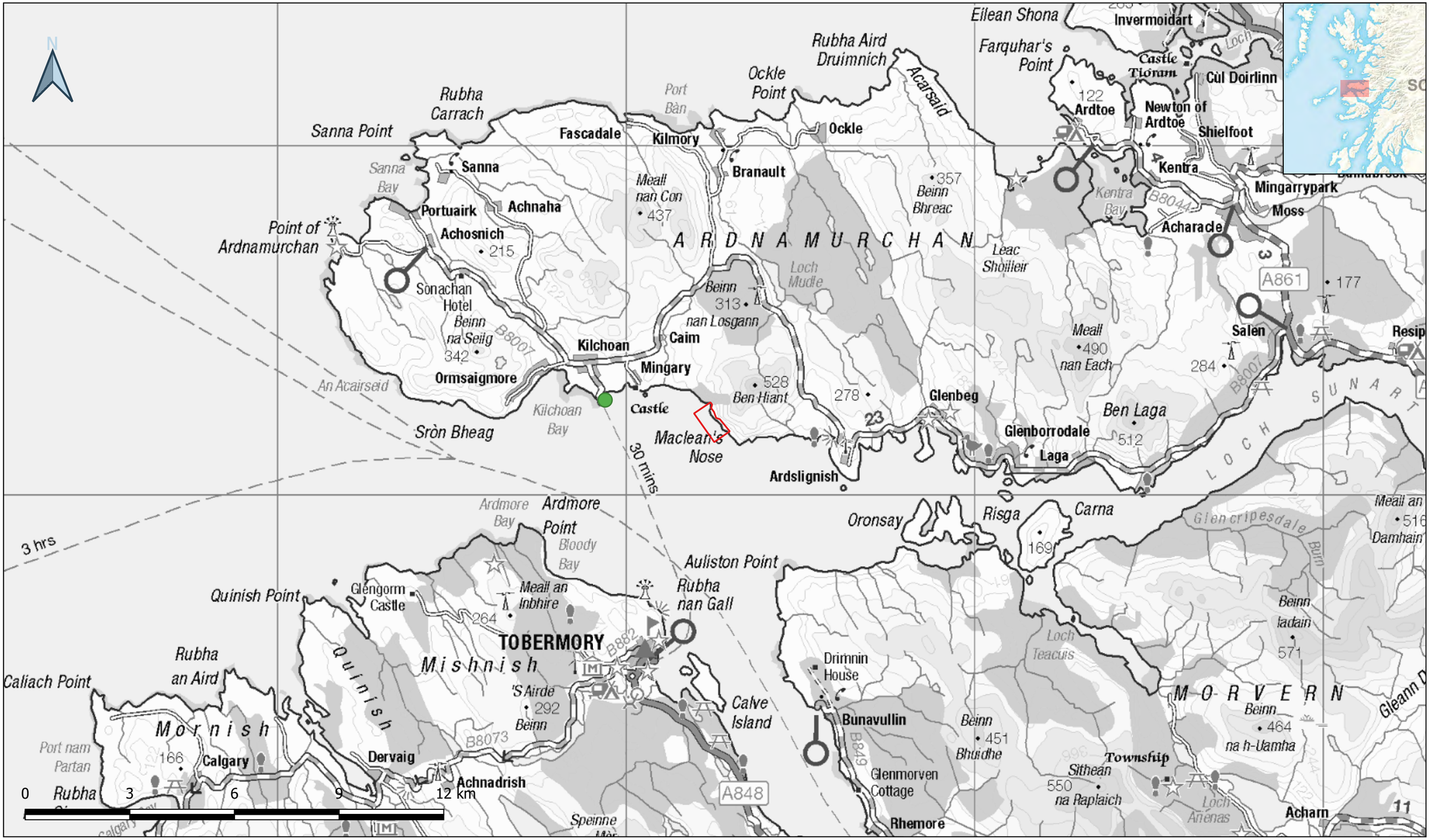


Figure 1. Site Location

Maclean's Nose Marine Fish Farm

Legend

- Proposed Mooring Extent
- Kilchoan Shorebase

marineharvest

1:100,000 @A3

Revision	1
Author	LC
Date	21/06/2018
Checked	YB
Date	21/06/2018

Development Area / Mooring Extent

E151951	N762327
E152418	N762641
E152468	N762579
E152444	N762476
E152521	N762373
E152586	N762196
E152691	N762160
E152974	N761812
E152531	N761504

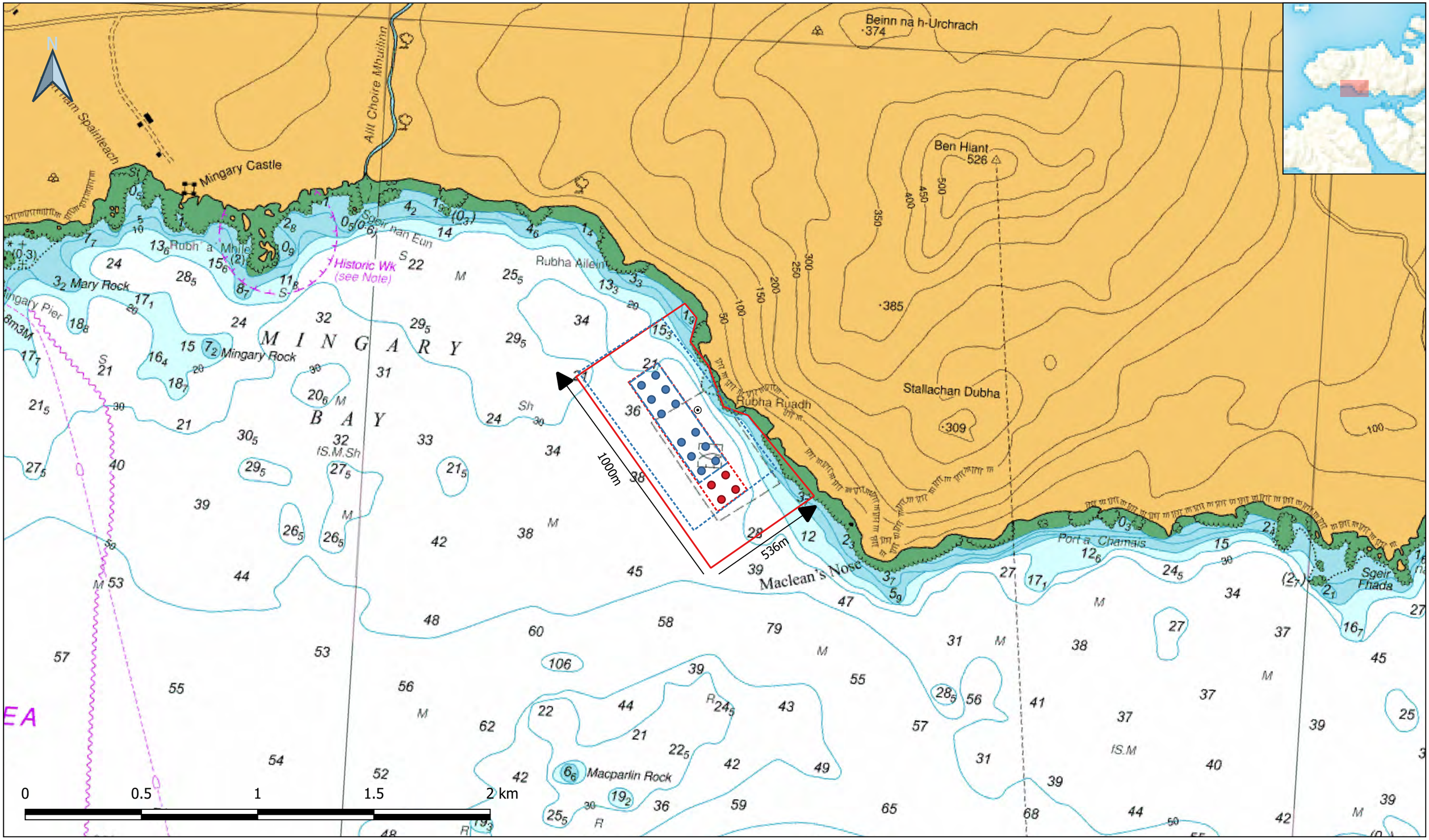


Figure 3: Existing and proposed infrastructure.

Maclean's Nose Marine Fish Farm

Legend

- Proposed Mooring Extent
- Proposed Pen Extent
- Proposed Pens
- Feed Barge

Existing Infrastructure

- Moorings Area
- Pen Area
- Existing Pens

marineharvest

1:15,000 @A3

Revision	1
Author	LC
Date	21/06/2018
Checked	YB
Date	21/06/2018

Development Area / Mooring Extent

E151951	N762327
E152418	N762641
E152468	N762579
E152444	N762476
E152521	N762373
E152586	N762196
E152691	N762160
E152974	N761812
E152531	N761504

North

10 40 80 120 160 200
0 20 60 100 140 180

515m

160m

150m

850m

1,005m

180m

75m

75m

205m

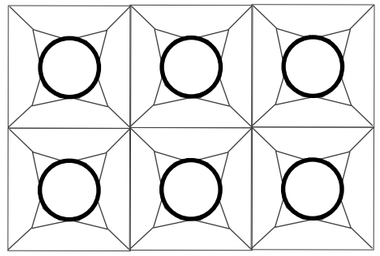
Rubha Ruadh

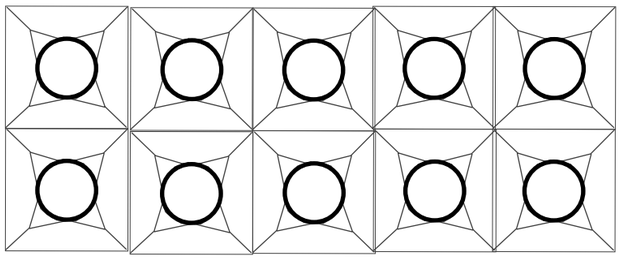
PROPOSED: MACLEANS NOSE SALMON FARM
PLAN VIEW - SITE CONFIGURATION

Key:
- Planning Boundary & Moorings Area
- Proposed pens within a pen matrix
- Feed Barge
- Feed pipes (Black or white, but not in combination)

Figure 4 Detailed illustration of cages, feed barge and moorings
16 circular plastic cages 120m circumference.

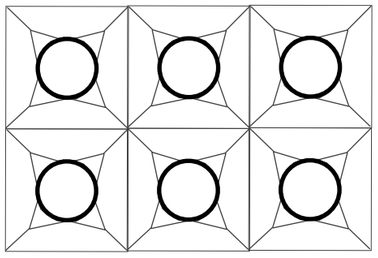
Scale: 1:4,000 Date 13/03/2018 Drawn CLH Revision No. 0001 Status Final

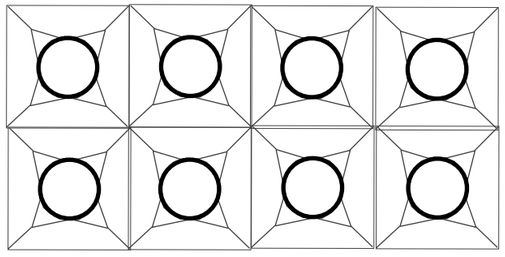


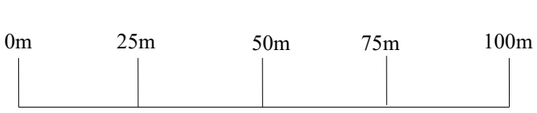


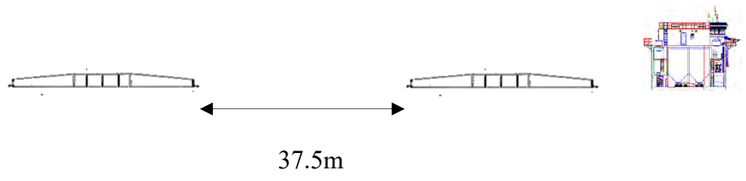
Plan – Not to scale

Plan – Not to scale

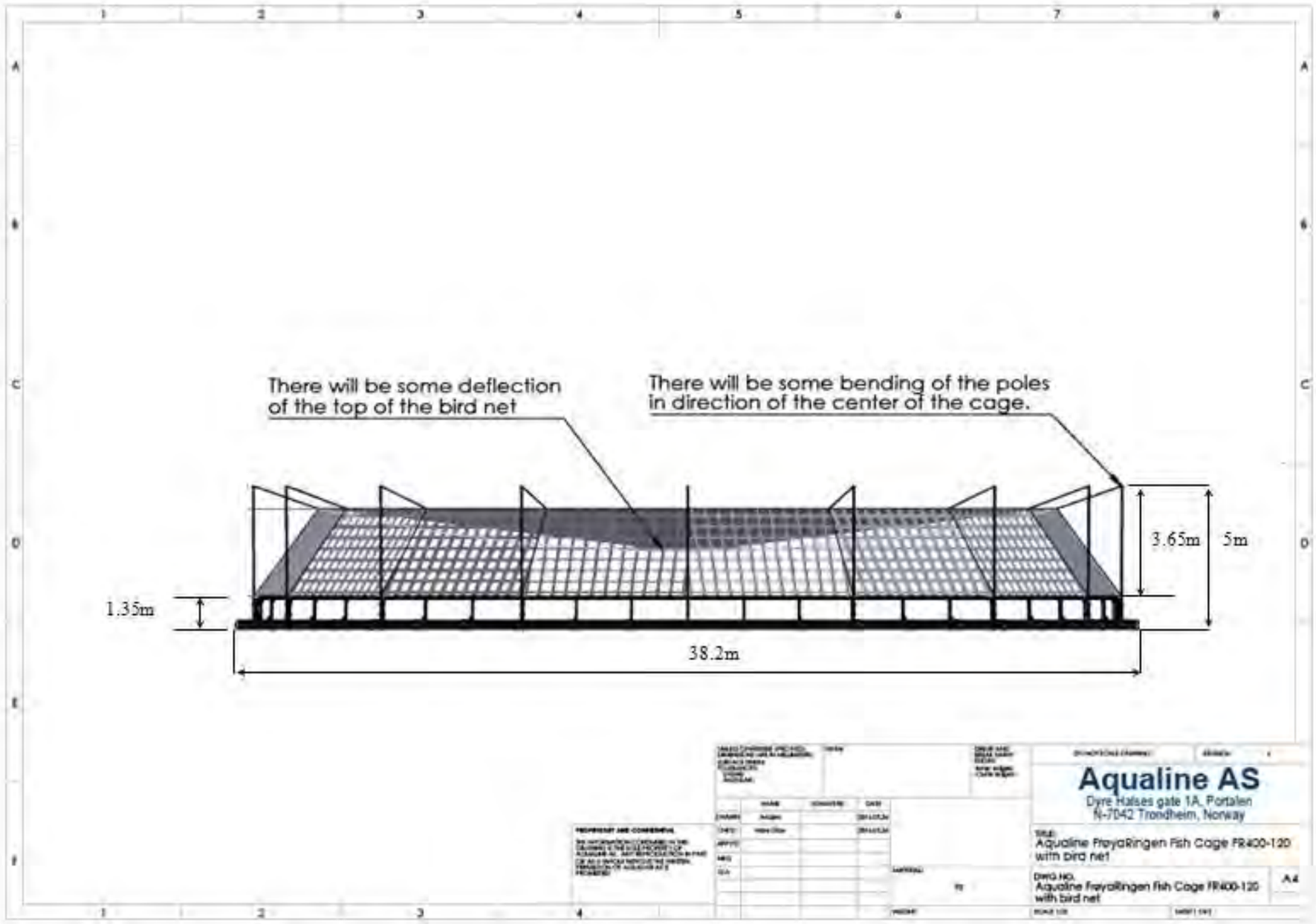




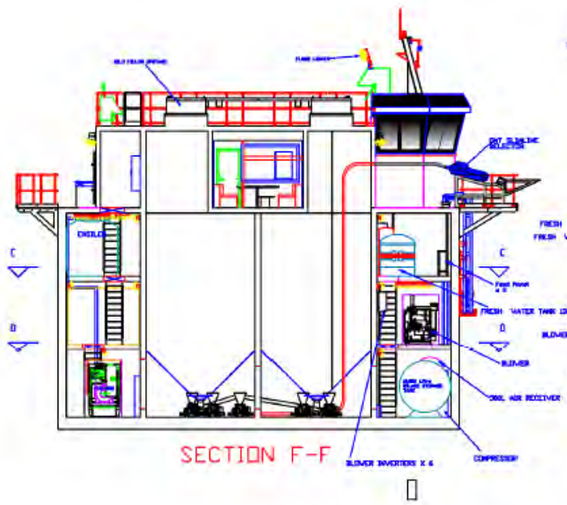


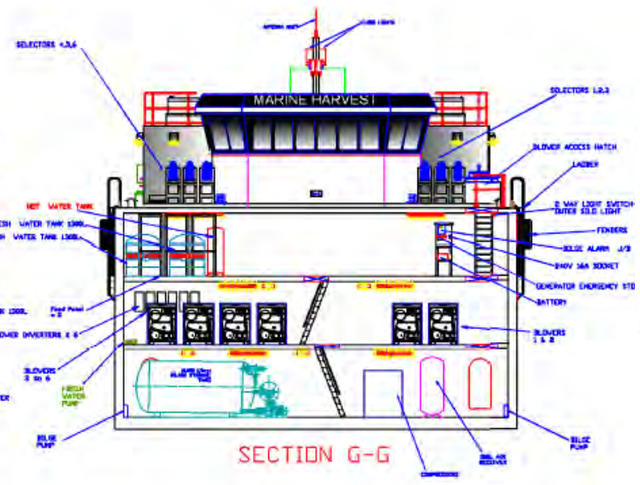


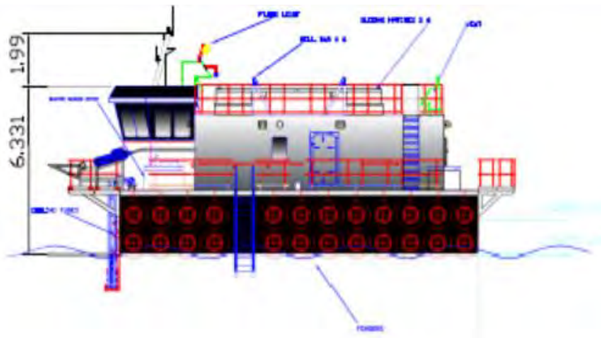
PROPOSED: MACLEAN'S NOSE, ARDNAMURCHAN	Key:		**1:1,250**	**22/02/18**	**LC**	**SM**	**0001**	**Final**
ELEVATIONS - SITE CONFIGURATION		Feed System (400t Gaelforce Seamate)						
Figure 1 Surface Cross section view of 16 circular plastic pens of 120m circumference in an 75m matrix grid		Typical Pen Design	Scale	Date	Drawn	Checked	Revision No.	Status

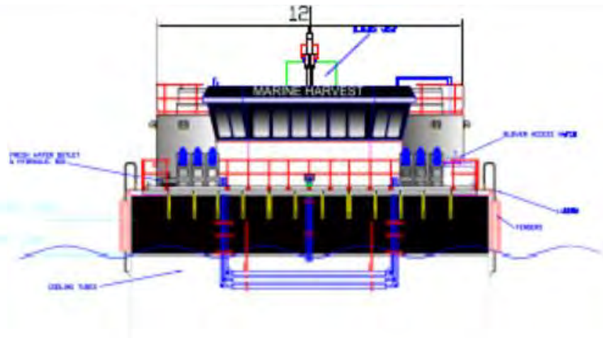


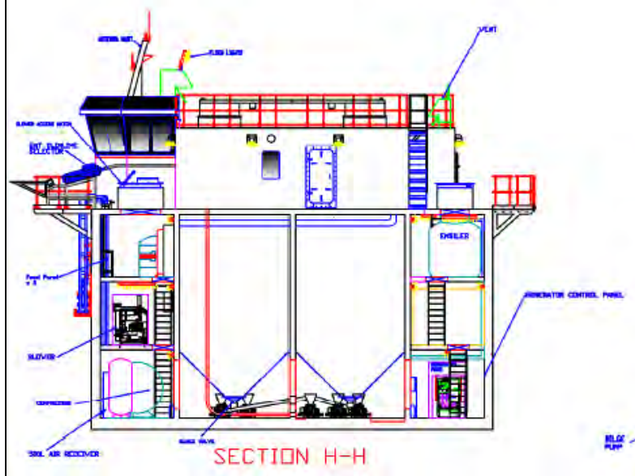
PROPOSED: MACLEAN'S NOSE, ARDNAMURCHAN	Key:	Not to Scale	22/02/18	LC	SM	0001	Final
PLAN & ELEVATIONS							
Figure 3 Typical Pen Design with Top Net Configuration		Scale	Date	Drawn	Checked	Revision No.	Status

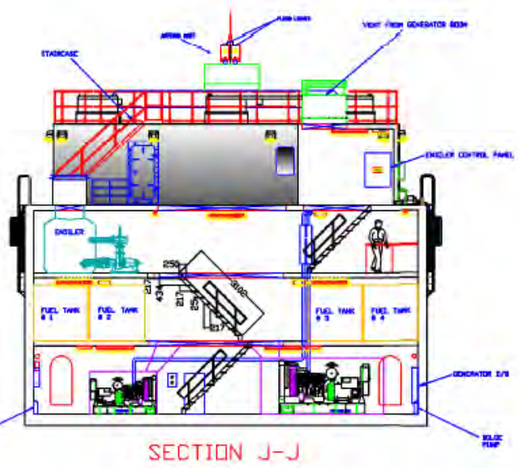


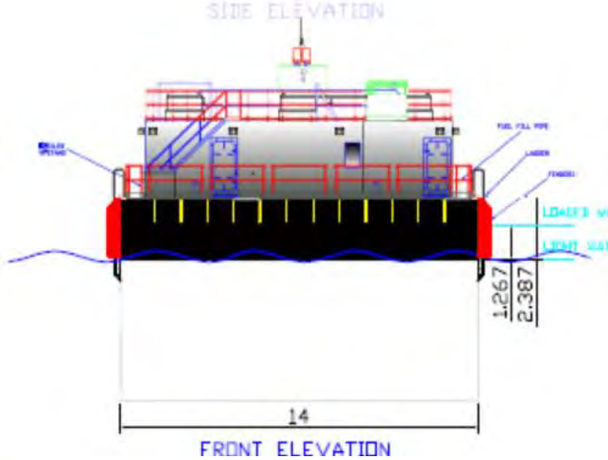


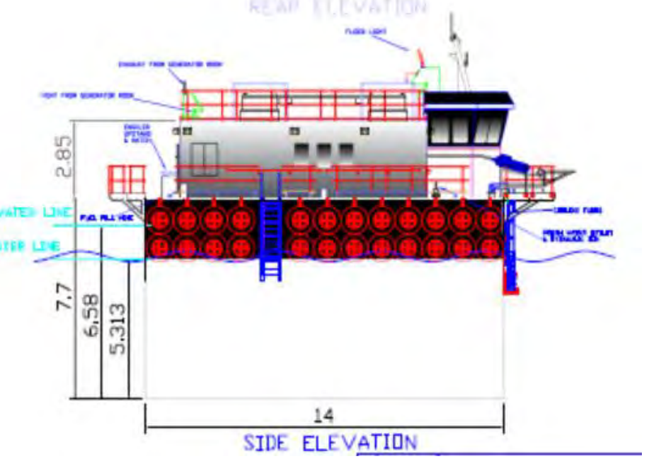












PROPOSED: MACLEAN'S NOSE, ARDNAMURCHAN	Key:	**Not to Scale**	**22/02/18**	**LC**	**SM**	**0001**	**Final**
PLAN & ELEVATIONS – FEED SYSTEM DESIGN							
Figure 4 General Assembly – 400t Gaelforce Seamate		Scale	Date	Drawn	Checked	Revision No.	Status