

Part 4 & 8: Description consultation event & approach taken.

A request was sent out to MS-LOT to ask for a pre-application statement. The statement suggested the requirement for a pre application consultation event (Attachment 7). 6 weeks before the consultation event notifications (attachment 1) for the proposed development were send out to involved and interested parties (attachment 2). At the same time, a notification (attachment 3) was published in the Oban times describing when the consultation event would be held and on how to join. The notification also explained where a brochure (attachment 4) with more information regarding the development could be found. The consultation event was held via zoom on the 20th of May at 10:30 and lasted for about 35 minutes. 12 interested parties joined the consultation event (attachment 5). A 15-minute presentation was given describing the proposed development and explaining a variety of aspects of the kelp farm (attachment 6).

Part 5: Information supplied on the consultation event.

The notification and brochure covered most of the relevant information regarding the development.

During the consultation event a 15-minute presentation was given.

Presentation summary:

Purpose of the Pre Application Consultation (PAC)

- To inform the involved stakeholders and interested parties.
- To address any issues, concerns and questions raised by the general public.
- To inform what we are planning – what, where and how.

Background to the Kilchoan Estate

- We are located on the northern shore of Loch Melfort, 30 minutes south of Oban.
- The estate was bought by the current owner, Nicolas Ibanez Scott in 2015.
- It comprises of 1500 acres.
- We focus on ecological restoration, rewilding and preservation of the marine and terrestrial habitats for the benefit of the people of Argyll and the world.
- Current ecological restoration projects include:-
- Melfort Hill Plantations. We have deer fenced and planted 123,000 native trees on 750 acres, liaising with Scottish Woodlands.
- Kilchoan Oyster Restoration Project. Together with Loch Craignish, Sea Wilding and John Hamilton we have been partaking in an oyster restoration project. The object of this project is to re-introduce native oysters and create a healthy self-sustaining population in Loch Melfort.

Reasons

- To supply the increasing demand of seaweed using sustainable methods.
- To create a model that can be used by the public.
- We would like to have Outreach Projects – to work with universities and local primary schools. We already collaborate with Glasgow University. Five of their students are partaking in a work placement at Kilchoan in June to do an on-site survey.

Why Seaweed?

- To create a nursery for fish.
- Carbon capture.
- Increasing biodiversity which goes hand in hand with creating a nursery for fish.
- Nutrient removal – phosphorus, carbon, nitrogen.

Proposed Site Location (1)

- Eilean Coltair: an island which is part of the Kilchoan Estate – as shown on the chart.
- The site offers suitable growing conditions.
- It is close to a landing site. Our pontoon is only a 3-minute boat ride.
- It is out of usual creel grounds.
- There is limited boat traffic in the area.
- The kelp we wish to cultivate is already naturally growing here.

Proposed Site Location (2)

- We are applying to the Crown Estate for an area of 4 hectares.
- Currently only interested in building a trial farm of 920m²
- Farm depth between 12-22 metres.
- Positioned into the prevailing south western winds to reduce the sail effect and pressure on the lines.

Farm Design

Trial Farm

- 2 x 60 metre longlines.
- Secured by 4 x 2 tonne concrete anchors.
- Connected by using zig-zag method to increase biomass.

Target Species

- In Year 1 we would like to cultivate *Laminaria saccharina* (sugar kelp)
- In the future we would like to cultivate *Laminaria digitata* (oarweed) and *Alaria esculenta* (dabberlock).

Monitoring & Decommissioning

- The farm will be monitored daily from the shore. We will conduct a boat survey once a week and check everything is in order. We will also check after heavy weather the anchor, chain and wear and tear on the ropes. Also, after two weeks of deployment we will conduct the first survey.
- Gear that has been worn out will be brought to shore, disinfected, and disposed of correctly.
- In case the lease expires, Kilchoan Management Ltd will be responsible for the decommissioning of the farm and we will restore the seabed to its original state.
- Monitoring system: temperature and salinity loggers and monthly water sampling.

Production Plan

- Depending on the efficiency of the planning process we hope:-
- Deployment of the farm in August 2021 - Seeding lines September/October 2021.
- Harvest in May 2022 – aiming for 1.5 to 2.5 tonnes of seaweed.
- Depending on the growth rate, second harvest September 2022.
- We have no intention to expand the farm at this present time.
- Raw product to be sold to a local seaweed processor.

Informed Stakeholders

Before this Consultation event we have been in touch with the following interested stakeholders:-

- SEPA
- Marine Scotland (MS-LOT)
- Crown Estate
- Nature Scot
- NLB
- MCA
- Kames Fish Farm
- Neighbouring estates and neighbours.
- Local fishermen
- Seaweed industry contacts.

Environmental Impacts

- Loch Sunart to Sound of Jura MPA: Insignificant impact.
- This area cannot be trawled or dredged due to the protection of the flapper skate.
- Genetic diversity: Reproductive material within 25km from site seeding material comes from SAMS/Certified aquaculture hatchery).
- Low risk of entanglement- There are only seals in the area, occasional porpoises and rarely dolphins. There is no more risk of entanglement than on a fin fish farm but if there was an entanglement, we would report it to Nature Scot and the Scottish marine animal stranding's scheme.
- Benthic impact: Minimal, no priority species have been found during the site selection dives.
- Sound: minimal impact. We are only using a bigger boat to deploy the anchors. We will use the estate boat which has 30 horsepower Yamaha engine and is very quiet.

Socio Economic Impacts

- Low visual impact: limited, will be in front of Kilchoan shoreline and is not visible from the other side of Loch Melfort.
- Fisheries: mainly creels, limited use and close to shoreline.
- With care, static gear can still be deployed close to kelp farm.

Parts 6: Information received.

The Northern lighthouse Board and Nature Scot came back with some recommendations and changes prior to the consultation event. While 4 questions were asked during the questions and answer sessions of the consultation event.

NLB came back with corrections that needed to be made regarding the navigational markings of the trial farm:

“Thank you for your recent enquiry in regard to a pre-application consultation for Kilchoan Estate’s proposed new seaweed farm in Loch Melfort.

NLB has no concerns with the development. I note in the supporting information that you intent to mark the trial site with 2 cardinal buoys, increasing to 4 once the full site in is position.

Please note, this is not necessary. Cardinal buoys are not an appropriate means of marking for aquaculture sites, and we would not approve their use in this instance.

The only navigational marking required (for the trial site) would most likely be a yellow Special Mark Buoy positioned at the Eastern mid-point or Southern seaward corner of the long-lines.

I will provide a formal response once I receive the Council Planning and Marine Licence applications.

I would like to attend the public consultation on the event, so please could you sent me through and invitation.”

Nature Scot gave us information and recommendations regarding the environmental impacts of the kelp farm in Loch Melfort:

“I have had a look over the supporting information that you sent and I can confirm, that from our perspective, it is unlikely we would have any significant concerns about what you are proposing. However, I have set out some pre-application advice below which I hope will be helpful. If you can provide the information outlined below in support of your final application it will help to reduce any subsequent delays.

Loch Melfort Seaweed Cultivation Proposal – NatureScot Pre-app Advice

Protected areas

Loch Sunart to the Sound of Jura MPA: The proposal is located within the Loch Sunart to Sound of Jura Marine Protected Area. However, we do not consider that this proposal is capable of affecting, other than insignificantly, the common skate feature of the MPA. As such we will not require any further assessment in this respect.

Inner Hebrides and Minches SAC: See advice in entanglement section

Collection of reproductive material

There is currently limited information relating to the genetic diversity of seaweed populations on the west coast of Scotland. To ensure that the genetic integrity of any local seaweed populations is maintained we would recommend that any collection of reproductive material for the purposes of seeding the lines takes place as close to the farm as possible. We would recommend that any collection

should take place within the same waterbody, ideally as close to the cultivation site as possible but not beyond 25km (by sea) from the site.

We understand that the quantities of reproductive material required for the cultivation of kelp species (*Saccharina latissima*, *Alaria esculenta*, *Laminaria digitata*) are relatively low. We would not expect these quantities to result in any significant impacts on the viability of wild populations and we would not therefore require any form of formal stock assessment for the wild collection of these species. However, we would nonetheless recommend that any collection of reproductive material should follow best practice guidelines as set out below. Needless to say, if collection is taking place via boat access then a number of the recommendations below will not apply:

- Avoid disturbing wildlife such as nesting birds including seabirds, especially in the main bird nesting season and also seals, especially during the pupping season by keeping an appropriate distance away. Further guidance can be found Scottish Marine Wildlife Watching Code and the Guide to Best Practice for Watching Marine Wildlife: <https://www.nature.scot/professional-advice/land-and-sea-management/managing-coasts-and-seas/scottish-marine-wildlife-watching-code>
- Vehicle access should be restricted to existing tracks and vehicles should not be used on the foreshore.
- Cut fronds (leaves) with sharp scissors or a knife, well above the point of growth and always leave the holdfast attached.
- Harvest sparsely. Take less than one third of an individual plant to allow for regrowth.
- Harvest during the active growth season and after reproduction has occurred if possible.
- Avoid denuding entire patches of any one species in one growth season.
- Rotate harvesting areas to allow ample time for recovery.
- Do not collect all the drift seaweed from a strandline. Harvest sparsely from various locations on the beach.
- Avoid or minimise trampling on other plants species and avoid taking 'bycatch' such as stalked jellyfish, brittlestars, bryozoans and blue-rayed limpets.
- If you move any rocks, replace them as you found them.
- Follow 'Check, Clean, Dry' biosecurity principles, checking, cleaning and drying all equipment and clothing when moving between sites to ensure that invasive species, pests and diseases are not spread to new areas. Further information about biosecurity principles is available here: <https://secure.fera.defra.gov.uk/nonnativespecies/checkcleandry/#>

We do not currently understand the cultivation methods for the following species mentioned in the supporting information: *Laminaria hyperborea* and *Sacchoriza polyschides*. We believe these species are not currently cultivated commercially in Scotland, but trials may be underway to try and establish successful cultivation methods. We are aware that the quantities of reproductive material required to successfully culture of some these species on a commercial scale may differ to that which is required for the commonly cultivated kelp species mentioned earlier. If you intend to cultivate *Laminaria hyperborea* and / or *Sacchoriza polyschides* at a commercial scale then it is likely we would require further information. While we do not object to the cultivation of these species in principle, if they were to be cultivated at a commercial scale then it is likely we would require additional information relating to cultivation techniques including the quantities of reproductive material required. To avoid the requirement for further information, and any subsequent delays to the determination of any future application, you may wish to remove these species from your final licence application. Should you wish to

maintain these species on your licence application, or subsequently include them on the licence in the future, then we would be happy to discuss information requirements further.

Biosecurity

We would recommend that a biosecurity plan should be developed as part of this proposal and submitted in support of your licence application. This plan should set out the measures that will be taken to ensure the operation of the farm does not result in the introduction or transportation of any invasive non-native species of pathogens to or from the site. The plan should include all operations from collection of wild material and hatchery stage through to the on-growing, harvesting and processing stages. Guidance on best practice biosecurity planning can be found online in NatureScot (formally SNH) [commissioned report 748](#).

Entanglement

The development of seaweed cultivation will create structures that may pose a threat to marine megafauna through entanglement.

Small cetacean such as harbour porpoise and dolphin species are generally considered to be at low risk of entanglement. The proposal is located approximately 2km from the Inner Hebrides and Minches SAC, designated to protect its harbour porpoise feature. Given the low risk of entanglement posed to harbour porpoise and the relatively small scale nature of the proposal we would not expect there to be any likely significant effect on the harbour porpoise feature of the Inner Hebrides and Minches SAC.

Minke whale appear to be particularly susceptible to entanglement in fishing gear, however there are no records of entanglement occurring in aquaculture equipment in Scotland or the UK. Seaweed cultivation is a relatively new industry in Scotland. While some parallels can be drawn between the equipment used for seaweed cultivation and that used in the well-established mussel farming industry, there remain a number of differences and so drawing direct conclusions on the risk posed to minke whale by seaweed cultivation is not possible. Given the lack of data in relation to this issue, and so that we can improve our understanding of this interaction, we would request that should you be granted a licence in the future, that you would commit to reporting any entanglement incidences with marine mammals, including cetacean species. Should any entanglement incidents be recorded they should be reported to MS-LOT, NatureScot and the Scottish Marine Animal Strandings Scheme.

Benthic Impacts

We do not have any concerns about possible impacts on PMF habitats or species present in the footprint of the farm.”

Questions raised after the consultation event:

Adrian Mcleoud (SAMS): ‘How did you survey the seabed during site selection dives?’

Charly Bevington (Oceanium): ‘What is the timeframe you are looking at expanding the farm to full capacity?’

Tanya Rubicoff (Scottish Seafarms): ‘Which company will be used for the deployment of the anchors?’

Anneli Hill (Crown Estate): *'Loads of potential for kelp farming, what will happen with the raw product and how much kelp do you plan to cultivate?'*

Part 7: Amendments made after receiving comments.

Comments from the NLB (Northern Lighthouse Board):-

The comment from the NLB regarding the markings of the trial site has been taken into account. We have taken the red and green cardinal buoys out. We will place a yellow special marker buoy at the Eastern mid-point of the Southern seaward corner of the longlines.

Comments from NatureScot:-

It was suggested to get reproductive materials within 25km (by sea). The reproductive material for the farm will be purchased from SAMS who get their brood stock from Bridge over the Atlantic which is 2.5 miles from Kilchoan Estate.

As there is a lack of knowledge about the cultivation of *Laminaria hyperborea* and *Sacchoriza polyschides*. It was decided to not focus on these species at the Kilchoan farm. Kilchoan estate is also in the process of writing a biosecurity protocol for the farm.

NatureScot also suggested to report any potential entanglement with marine mammals with them and Scottish Marine Animal Stranding's Scheme. This will be done if there is a case of entanglement.

Furthermore, advice and recommendations from NatureScot have been taking into account during the licensing procedure, consultation event and eventually the construction of the kelp farm.

Comments Adrian Macleod (SAMS):-

The comment from Adrian Macleod explained how we conducted the dive surveys. It was explained NatureScot suggested the benthic impact of the algae farm was minimal. During the dive surveys we did quadrants in the area and checked if we could find any priority species. We also took a sediment sample for analysing.

Comments from Tanya Rubicoff (Scottish Seafarm):-

The comment from Tanya Rubicoff regarding which third part company would be used for the deployment and harvesting of the farm was answered. Kames would be used for the deployment of the farm as we want to use local companies. For the harvesting, the Kilchoan Estate boat will be used.

Comments Charly Bevington (Oceanium):-

The comment from Charly Bevington regarding the pilot study was answered. Currently we only want to use the trial site and try the 'Zig-zag' method. We have no intentions to expand toward a commercial farm. We want to act as a model for the public to be used in the future. Depending on the success of the farm we might or might not expand the farm.

Comments from Anneli Hill (Crown Estate):-

The comment from Anneli Hill regarding the opportunities of seaweed farming and the processing of the raw product was answered and explained partially by Marnik van Cauter of Kilchoan Estate and Chalry Bevington from Oceanium. Oceanium is a seaweed processor which started recently, Oceanium has a refinery so they can turn kelp into food and nutrient products. They are developing a bio-degradable

packaging material so they can use the whole plant to make it into a number of different products. This year they have processed 50 tonnes, next year they hope to process over 250 tonnes.

Part of the mission is to enable the seaweed farming community in Scotland by providing a seaweed processing capacity so that farmers have somewhere they can sell their seaweed to and that you can have a widely spread, large scale seaweed processing industry on the west coast of Scotland.

The tonnage we are looking to produce at Kilchoan is 3.5 tonnes a year if all goes well.