

Introduction

South West Mull & Iona Development (SWMID) is a company limited by guarantee and a member of the Development Trusts Association Scotland (DTAS). Formed in 2014, the purpose of the company is to enhance the strength and wellbeing of the local community, to secure a competitive and prosperous economy, and to develop attractive and sustainable settlements.

Having developed a community plan based on extensive engagement with local people, SWMID is committed to undertaking projects which contribute to meeting the following outcomes:

- A larger and more balanced population
- A fit-for-purpose infrastructure
- A stronger more diverse business base
- Increase in average household income
- Strengthened local culture
- Improved community resilience
- A fully developed social infrastructure

SWMID wish to prove that the development of a new Seaweed Cultivation industry will not be a negative impact on the environment or the wildlife within it. We also wish to prove that the visual impact will not have likely significant effect at the site.

SWMID have already invested heavily in time and appropriate assessments and studies of seaweed cultivation over the last 2 years. Existing local infrastructure and resources are being utilised to accommodate technical and logistical capacity for the success of this project.

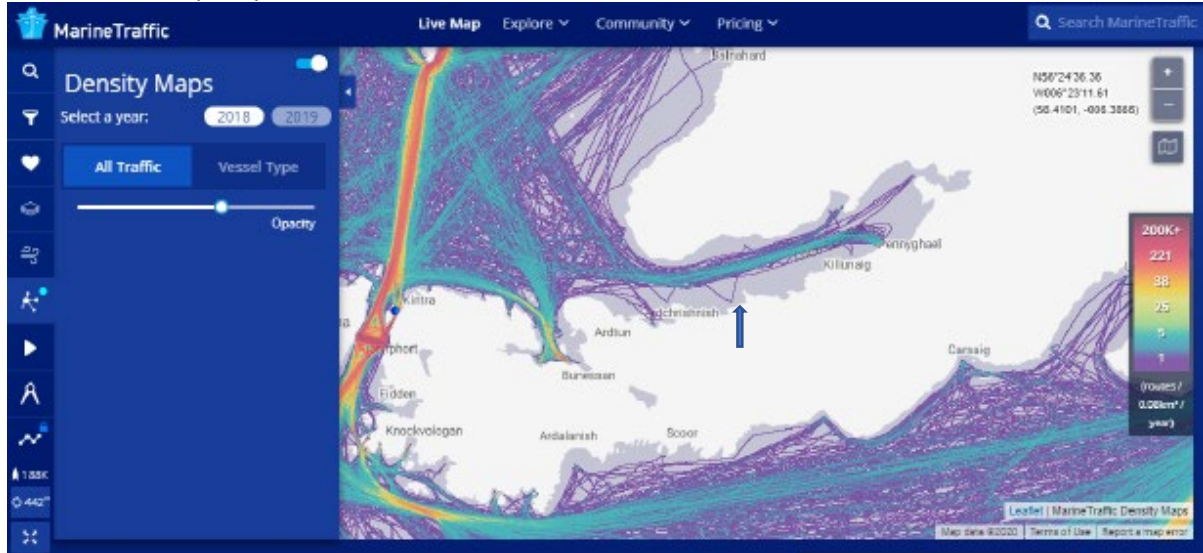
Over the next 3 years, SWMID will invest over £½ million directly in the South West Mull and Iona area to develop Seaweed Farm at sea, build or modify vessels and shore base facilities for their operations and to establish a processing facility in the area for the cultivated harvest.

The projections for turnover suggest that this investment will be made good by year 5 and provide up to a dozen full, part-time and casual jobs at the shore side and the same at the onshore processing facility.

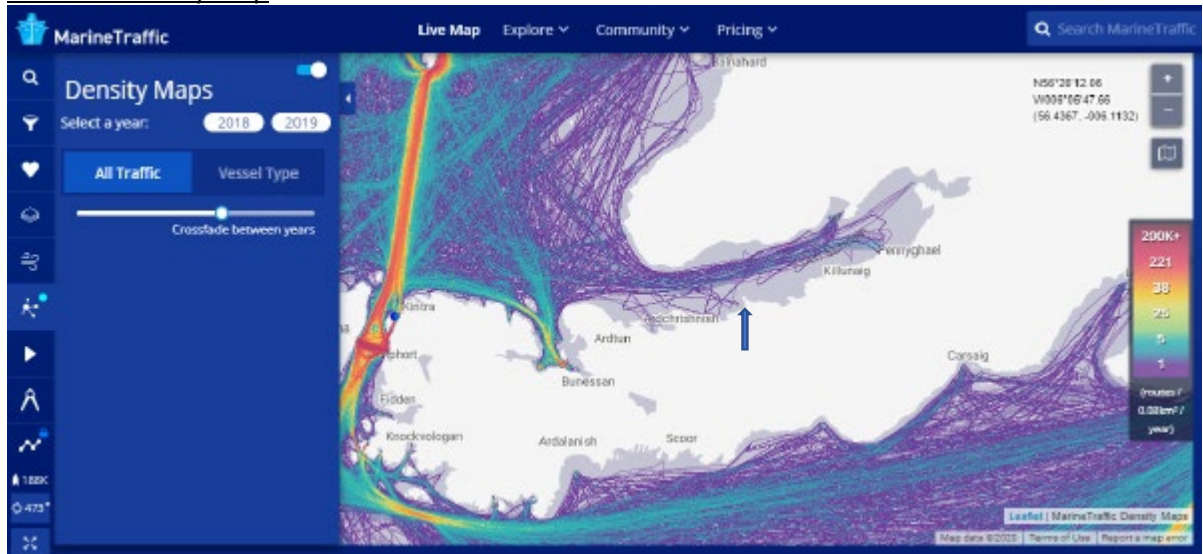
Vessel Traffic Review

A desktop study was undertaken to assess the risk to vessels in the area of the proposed Seaweed Farm. Using Marine Traffic tracking software, it was possible to provide Density Maps for 2018 and 2019. The charts below show that over the 2 years the Aird Fada site was visited by 2 vessels that carried AIS (arrow points to Aird Fada site).

AIS 2019 Density Map



AIS 2018 Density Map



Discussion with local fishing vessel owners and fishermen associations has revealed that this is poor shellfish fishing ground, so is an area they avoid. Loch Scridain, although near a popular yachting and tour boat area as vessels visit Tinker's Hole, The Sound of Iona and Fingal's Cave on Staffa. The Loch itself is rarely visited as it runs into a dead end against the prevailing winds, therefore off the beaten track, especially to sail powered yachts.

Emergency Response Plan

This plan will exist both here for information and as a stand alone document that will be circulated to local HM Coastguard and RNLI stations, local vessel users, local houses and on a signpost overlooking the site from shore.

Emergency scenarios and response

- vessel stranding – in the event of a vessel entering the Seaweed Farm exclusion zone and colliding with the Farm structure, the first concern is the safety of the vessel and crew. 999 should be called and the coastguard/RNLI informed. SWMID should also be contacted (number below) and repairs to the Farm structure will be enacted.
- cetacean entanglement – in the unlikely event of a seal, whale, dolphin or basking shark becoming entangled in the Seaweed Farm lines, The British Divers RESCUE HOTLINE: 01825 765546 should be called - <https://bdmlr.org.uk/>
- float loss – occasionally, some line floats may become detached from the Seaweed Farm structure. This will not degrade the integrity of the Farm structure, but SWMID should be contacted (number below) so the float can be recovered and the replaced back where it came from.
- Storm damage/loss of integrity of the structure – the design of the Seaweed Farm is such that multiple anchor lines hold the structure in place and the loss of several of these lines would not degrade the integrity of the Farm. But should it be observed that the Farm structure has been damaged or worse, lost from its moorings 999 should be called and the coastguard informed. SWMID should also be contacted (number below) and emergency repairs to the Farm structure will be immediately enacted. Local vessels (fishing and aquaculture boats) will be retained as emergency response and ropes, floats and other equipment held in preparation for such emergency repair at SWMID shore base 3 miles to the west.

SWMID Contact details (to be contacted in all scenarios)

Morven Gibson - General Manager - 01681 700021/01681 700403 - mgibson@swmid.co.uk

Monitoring Arrangements

SWMID will ensure that the Seaweed farm at Aird Fada will be regularly inspected by certified mooring specialists. A provision will be made for the continuous monitoring of the Seaweed Farm outwith its operational growing period. The site will be regularly visited by farm operatives by vessel and viewed from the nearby shoreline by local SWMID employees. SWMID will also ensure that regular visitors to the Loch (local fishing and aquaculture vessels) are asked to observe the site to ensure its integrity.

A record of visits and inspections will be kept by SWMID and made available to any inspecting MCA staff on request.

Site Name	Aird Fada				
	Date	Observer	Observation	Comments	Staff
	17/06/2021	Argyll Aquaculture	Visit to site during installation	Special marks installed	SJ, MG
	18/06/2021	Argyll Aquaculture	Installation by Inverlussa Marine	Anchors lines installed	SJ, MG
	19/06/2021	Argyll Aquaculture	Installation by Inverlussa Marine	Floats and lines installed	SJ, MG
	20/06/2021	Argyll Aquaculture	Installation by Inverlussa Marine	All lines in place and tight	SJ, MG
	27/06/2021	SWMID	Regular line checkby boat	All lines in place and tight	SWMID staff
	22/07/2021	SWMID	Regular line checkby boat	All lines in place and tight	SWMID staff
	17/08/2021	SWMID	Regular line checkby boat	All lines in place and tight	SWMID staff
	18/08/2021	SWMID	Shore observation	Special marks working, all floats in place	Anon
	13/09/2021	North West Marine	Dive survey of lines	All joints and swivels intact	NWM staff
	11/10/2021	SWMID	Deployment of seaweed lines	All lines and floats in place and tight	SWMID staff
	12/10/2021	SWMID	Regular line check	All lines and floats in place and tight	SWMID staff

An example of monitoring record

Mooring Arrangement Assessment

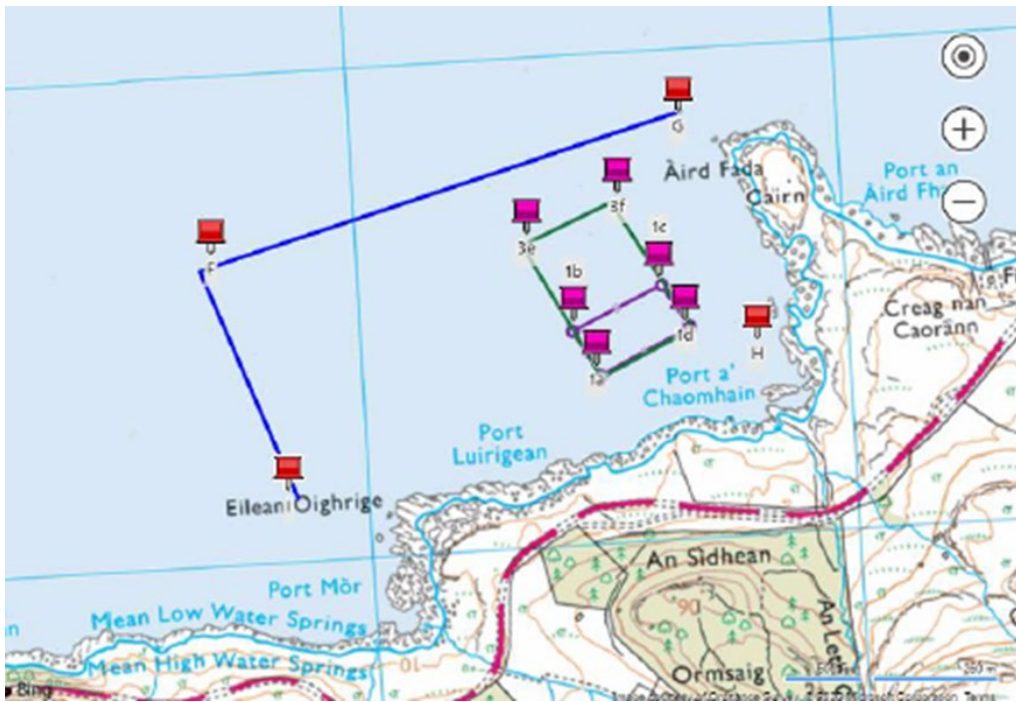
It is essential that the navigational and health and safety regulatory expectations for mooring systems are set in proportion to the potential risks with a view to develop a safe and sustainable seaweed growing platform for the long term. To do that [Inverlussa Marine services](#), with over 20 years experience in design, installation and maintenance of Aquaculture structures have designed a Seaweed Farm for SWMID that uses oversized ropes, chains and anchors to ensure the structure;

- can withstand such forces acting on it as are reasonably foreseeable including;
 - Environmental conditions, e.g. winds, waves, tidal currents
 - Loads during operational conditions including normal operation, contact loads from access boats and temporary loads during maintenance operations.
 - The weight of the installation and anything on it, buoyancy, drag and inertia forces from movement
 - Unplanned incidents including vessel impact
- its construction, commissioning, operation, modification, maintenance and repair of the Seaweed Farm may proceed without prejudicing the structure’s integrity.
- in the event of reasonably foreseeable damage to the installation or its moorings, it will retain sufficient integrity to enable action to be taken to organise appropriate safe repair, thus preventing mooring failure (thereby becoming a navigational hazard).
- it may be decommissioned and dismantled safely.

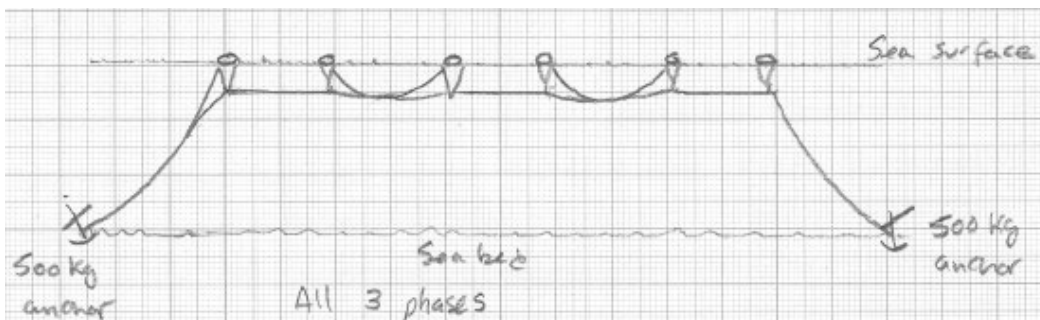
The Aird Fada site in on the north coast of Ross of Mull at the entrance to Loch Scridain. The outer limits to the Aird Fada site are bounded by the Lat/Lon in the table below and can be seen at this [LINK](#).

Navigational Risk Assessment – SWMID Aird Fada Seaweed Farm

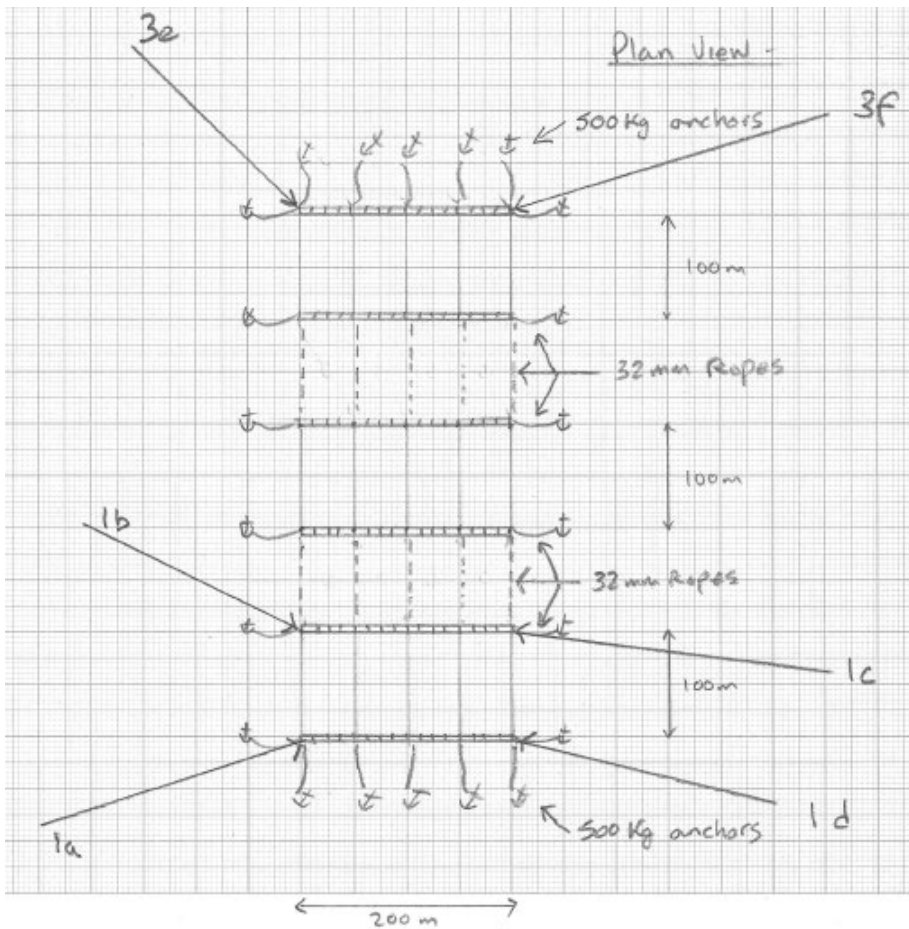
Points	Grid Reference	Lat (dec deg)	Lon (dec deg)	N	Lat (dec min)	W	Lon (dec min)
F	NM 43702 24635	56.344458	-6.1492846	56	20.667	6	8.957
G	NM 44675 24868	56.347074	-6.1338136	56	20.824	6	8.029
H	NM 44810 24395	56.342904	-6.1311743	56	20.574	6	7.870
I	NM 43831 24142	56.340111	-6.1467243	56	20.407	6	8.803
1a	NM 44478 24361	56.342421	-6.1364973	56	20.545	6	8.190
1b	NM 44436 24455	56.343242	-6.1372751	56	20.595	6	8.237
1c	NM 44617 24534	56.344045	-6.1344266	56	20.643	6	8.066
1d	NM 44664 24442	56.343252	-6.1335844	56	20.595	6	8.015
3e	NM 44350 24637	56.344826	-6.1388322	56	20.690	6	8.330
3f	NM 44541 24711	56.345599	-6.1358174	56	20.736	6	8.149



Aird Fada site Points F,G,H & I are the outer limits of the licensed site. Points 1a, 1b, 1c, 1d, 3e & 3f are the points showing the layout of the 6 Ha Seaweed Farm. Points F & G are the outer points that will have 2 special marks as is standard practice at Aquaculture sites.



Side view – Heavy ropes hold the floating seaweed farm firmly to 22 x 500kg anchors



Plan view - Points F,G,H & I are the outer limits of the licensed site. Points 1a, 1b, 1c, 1d, 3e & 3f are the points showing the layout of the 6 Ha Seaweed Farm.

Decommissioning Plan

SWMID have been trading since 2014 and are investing heavily in the Seaweed Cultivation industry. The seaweed harvest this Farm will grow, will become high value ingredients across multiple product lines. SWMID are developing in parallel to the Seaweed Farm, onshore facilities for the movement and processing of their product. Trade customers are being sought and agreements made for the supply of seaweed.

The Seaweed Farm design has been made with long service in mind. The use of heavy ropes rather than chains will allow a decade or more of operation before major replacement of parts are required.

Should the business venture flounder, SWMID will hold back sufficient funds to enable the Seaweed Farm to be removed from site. The surface structure can easily be detached and towed to their shore base 3 miles to the west of Aird Fada. The 22 anchors that hold the structure in place can be simply lifted to the deck of a winch enabled vessel. The cost of decommissioning would be a fraction of the cost of deployment and the sale of the anchors and floats at the site should easily cover the cost of works.