

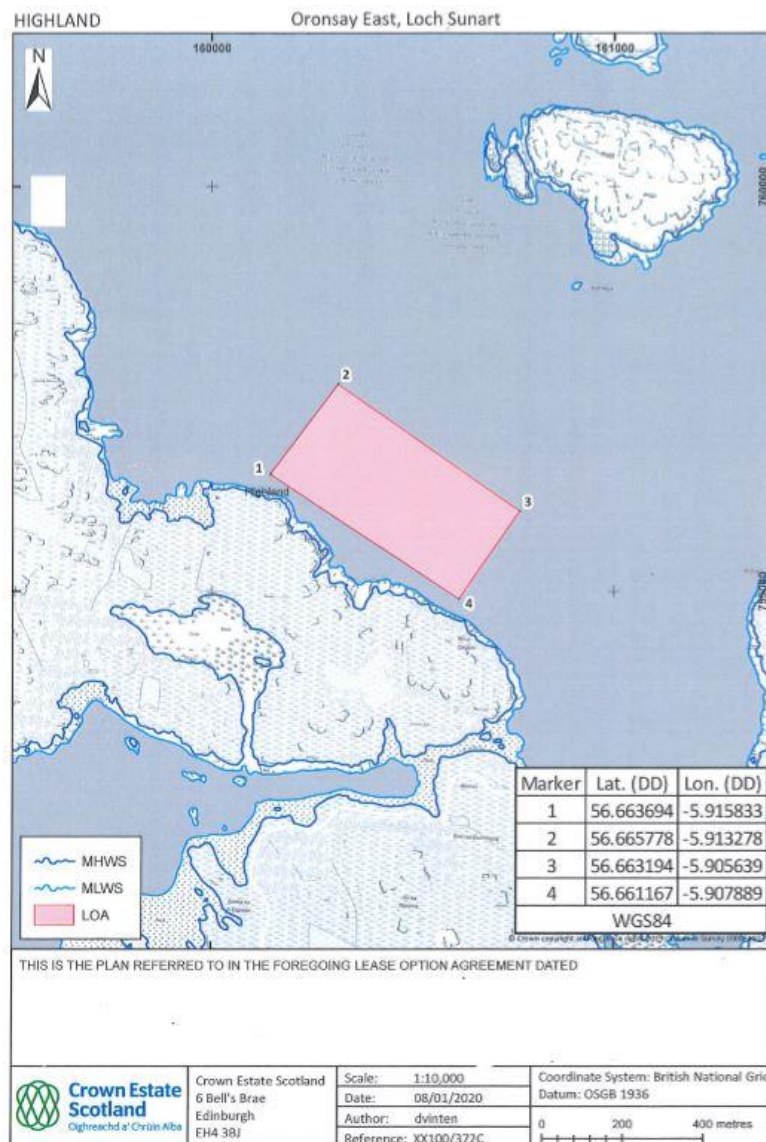
# GSS-Oronsay MSL Appendix1 - Location of Farm

## Introduction

The proposed seaweed farm site is east of the isle of Oronsay (“Oronsay East”) in Loch Sunart, Lochaber. The seaweed farm is located within the extent of the coordinates below.

Point	Latitude	Longitude	
1	56.66.367	-5.91.583	
2	56.66.578	-5.91.328	Nav Mark
3	56.66.319	-5.90.564	Nav Mark
4	56.66.117	-5.90.789	

The chart image below indicates the extent of the Lease Option Agreement that has been granted to GreenSea Solutions Ltd by the Crown Estate Scotland. The coordinates on this chart vary slightly from those in the license application as they are shown to an additional decimal place.



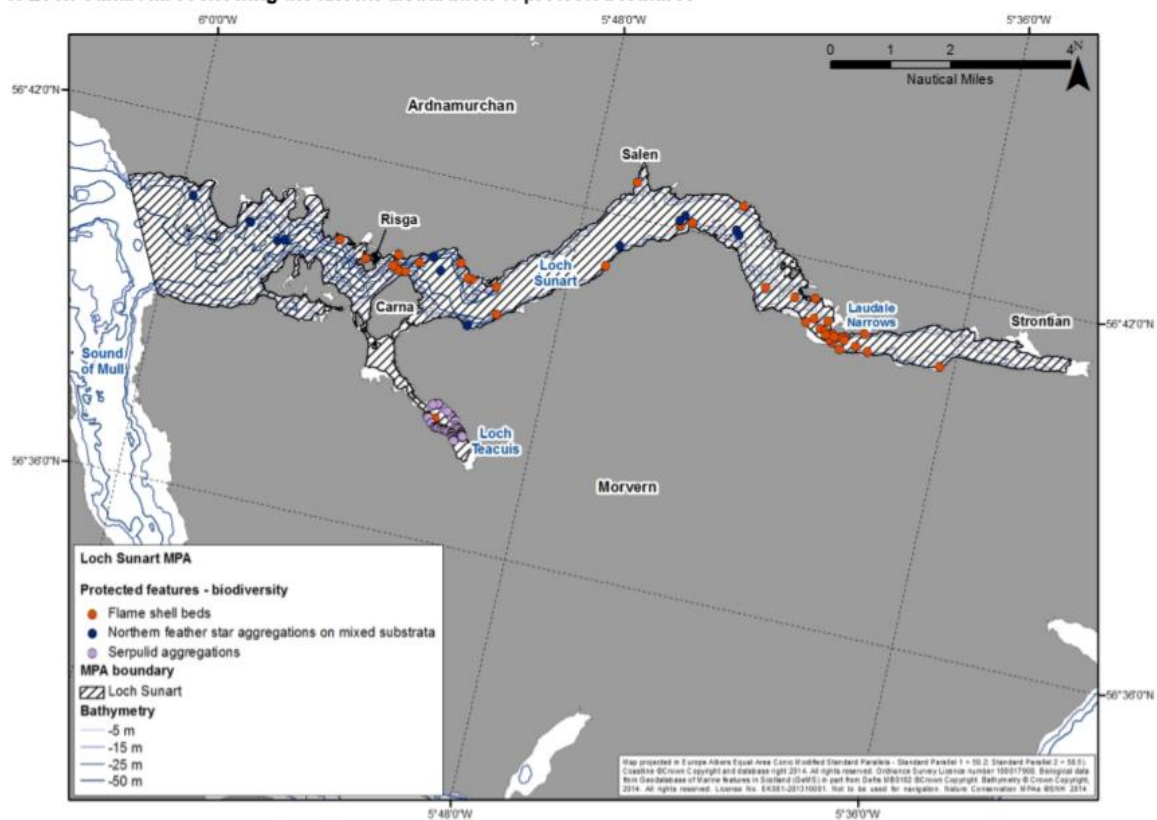
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### Site Designations

Oronsay East lies within Loch Sunart Marine Protected Area (MPA). This MPA has the following protected features: flame shell beds, northern feather star aggregations on mixed substrata, and serpulid aggregations. The chart below produced by SNH indicates the known distribution of protected species in the Loch Sunart MPA. There are no visible conflicts between these MPA protected features and the intended location for our site.

Notwithstanding the above, GreenSea Solutions is aware of and respects the importance of protecting these complex marine features and will designate the exact final placement of the seaweed farm and anchors accordingly to prevent any damage to the Rocky Reef features at the site.

Map of Loch Sunart MPA showing the known distribution of protected features



**Source:** Scottish MPA Project Assessment against the MPA Selection Guidelines, LOCH SUNART NATURE CONSERVATION MPA SEPTEMBER 2014

The site also sits within the Loch Sunart to the Sound of Jura Marine Protected Area designated for the protection of Common Skate. Oronsay East site is not however typical Skate habitat and once installed the farm would pose no negative effect should skate move through the area.

The site is within the Inner Hebrides and Minches Candidate SAC for Harbour Porpoises. The farm is placed tight to the shoreline and uses no fertilizers, chemicals, nor seal scarer devices and so would pose no negative effect should harbour porpoise move through the area.

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### Visual Impact

Great care has been taken in the design of the farm to make it as visually unobtrusive as possible. The farm sits subsurface and only mooring buoys will normally be visible. It is of vital importance to GreenSea Solutions to limit the visual impact of the farm on visitors to and residents of the area and wider users of the sea.

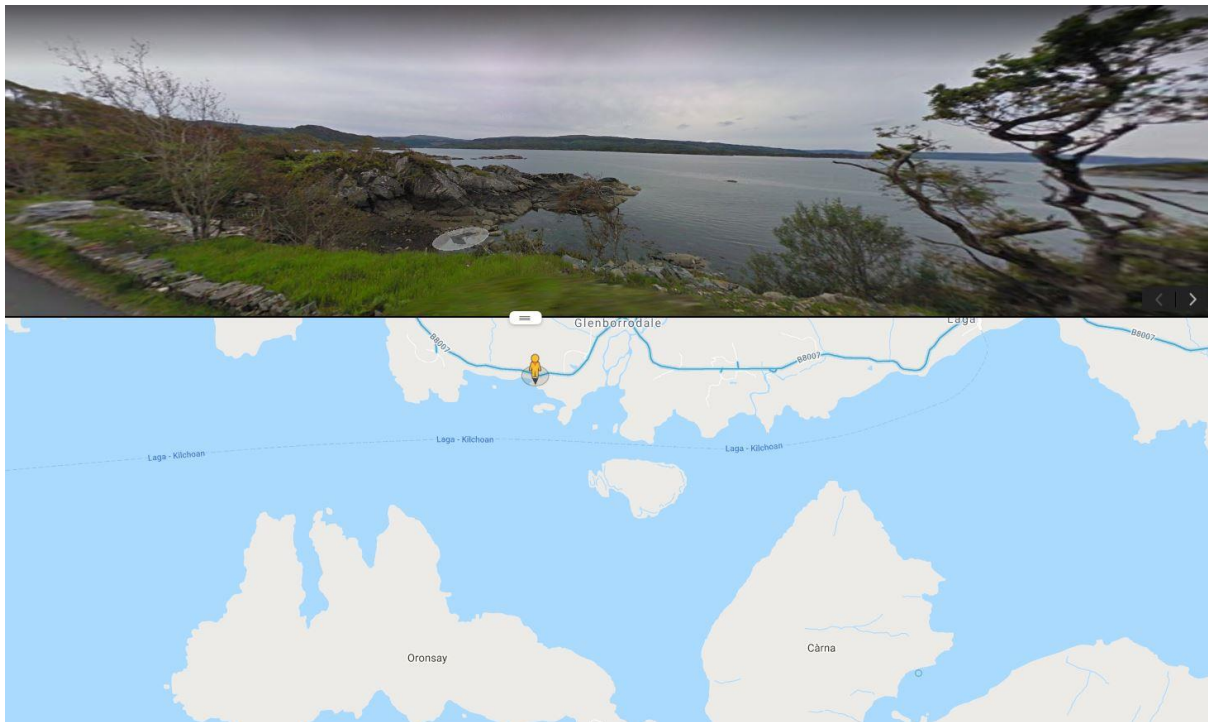
There are no houses or roads on the Isle of Oronsay, or the neighbouring island of Carna, overlooking the site. There is a pathway that runs over the hills on the nearby island of Carna which would allow sight of the proposed array.



The image above is a hiker's view of the proposed Oronsay East site from the neighbouring island of Carna, at a distance of 1.5km and at an altitude of over 140m. If you look carefully you can discern two yellow dots in the foreground area of water that have been added to the image to represent the Navigation marks required for the site. Due to the limitations of software editing these dots are approximately 3 times the actual size.

The only view of the proposed Oronsay East site from a public highway is from the B8007 which at this point is 1.5km to the north. The vast majority of the B8007 route along the north shore of Loch Sunart road runs through woodland and no seascape is visible from it. At this near sea-level altitude and at this distance, the farm site will not be visible to the naked eye from this location.

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View towards Oronsay East site from the B8007 1.5km to the north.

Admiralty charts show no suitable anchorage at Oronsay East site. There are safe overnight anchorages to the west at Sailean Mòr (see Pilot below) and in Carna West Kyle to the south east of the farm site. The most popular and secure anchorage in this area is the opposite side of Oronsay in Loch Drumbuie.

The proposed seaweed farm will use a proven design of sub-surface system that has been in use in Scotland since 2012 by SAMS and on more recent commercial installations in Argyll since 2018. Although similar to sub-surface systems used by the finfish industry, it is on a much smaller scale, requires significantly less buoyancy and has much less visual impact as a result. This system involves modular frames built of 50m x 50m squares (see farm boundary plans below) held in place by short scope moorings anchors. GreenSea Solutions plan on putting up to 3 such frames, the first in September 2020 and the added over the following couple of years.

All seaweed lines will be attached to this sub-surface frame structure. The deployment phase of seaweed lines will be October through November and harvesting phase will be April through May. The actual time any vessels will be on site during these phases are dictated by weather conditions and are likely to last a few days or weeks at most during the 2 phases. Periodic line surveying and maintenance will also be needed throughout the year as per standard license conditions.

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### Oronsay [Loch Sunart](#)

Sailean Mòr, the gut on the north side of the island can be a quiet spot, away from the crowds in Loch Drumbuie, but it seems crowded if there is more than one boat at anchor. The island is difficult to get around because of the wild vegetation but the walk up to the ruined cottages is worth a go - you can see them from the anchorage, on the west side of the gut. There is at least one black house (with the curved corners) and one white house (with windows, and generally much better built). I have no idea what the story of this island is, maybe it is too obscure for anyone to know much about it. But, once again, the population was 'cleared' by the end of the 19th century.



Extract from online Pilot [www.scottishanchorages.co.uk](http://www.scottishanchorages.co.uk)

### Navigation

As with standard aquaculture practice recommended by Northern Lighthouse Board, the outer extent of the site shall be special marks comprising yellow buoys fitted with yellow crossed topmarks and lit with a flashing sequence. The position of the anchor points will not be marked in any way, to keep the visual impact of the site to an absolute minimum.

In designing the farm layout, the extent has been deliberately restricted in size to minimize impact on other marine users such as commercial and leisure vessels operating in or transiting through the area.

### Farm Layout Plan

A 1:4,000 scaled plan of the farm layout is shown on the Chart extract below:

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