



**GLENELG SEA FOREST SEAWEED FARM:
NOSTIE BANK, LOCH ALSH**

**APPENDIX 3:
METHOD STATEMENT – LONGLINE INSTALLATION**

Revised 12/04/2023

Revision notes:

1. Scope of work revised
6. Materials revised
- 7.3 Deployment of Equipment revised

Revised 18/04/2023

Revision notes:

1. Scope of work revised

Contents

1	Scope of Work	1
2	Site Details	1
2.1	Location of Work	1
2.2	Name and details of Nearest Medical Centre and Hospital	1
3	Personnel and Competence	2
3.1	North West Marine (NWM) Personnel.....	2
4	Hazards, Risk Assessments and Method Statements.....	2
4.1	Risk Assessments & Method Statements	2
4.2	General Project Hazards Identified.....	2
4.3	Personal Protective Equipment (PPE)	3
4.4	Additional Measures Due to Covid-19 Pandemic.....	3
5	Tools, Plant and Equipment.....	3
6	Materials.....	3
7	Method and Sequence of Work	4
7.1	Prestart	4
7.2	Daily	4
7.3	Deployment of Equipment	4
8	Consents and Permits.....	6
9	Emergency Arrangements	6
10	Method Statement Responsibility.....	6
11	Record of Briefing.....	6

NB: This Outline Method Statement must be developed in more detail prior to any works being carried out on site.

1 Scope of Work

This method statement covers the works involved for North West Marine (NWM) to install the stage 1 test lines for the Nostie Bank Seaweed Farm. The farm at Nostie Bank will be installed over a two to three year period:

- Stage 1 will comprise the installation of 5 individual longlines, 400m long, set 10m apart. The lines will be moored securely to the seabed with embedment anchors at each end and intermediate vertical mooring lines at 50m spacing with mass anchors on seabed.

Once the sustainable yield of seaweed has been proven, stages 2 and 3 are set out below:

- Stage 2 will see a grid system installed, 5 longlines in two 100m sections, set 0.8m apart. The grid will be moored securely to the seabed with embedment anchors at each end and lateral mooring lines at 25m spacing, with embedment anchors. This will be covered under a separate Method Statement.
- Stage 3 will see the original Stage 1 longlines converted to the grid system.

Drawings showing indicative plans and sections of the proposals located in Appendix 4. The two relevant drawings are:

- NLC-GSF01-00-DR-C-003 (Rev -00) – Site Plan
- NLC-GSF01-00-DR-C-005 (Rev -00) – Equipment Arrangement - Longline

Refer to appended drawing for further information.

2 Site Details

2.1 Location of Work

The site location is defined as Nostie Bank, at the east end of Loch Alsh, Wester Ross, Highlands; Farm Coordinates are detailed in Table 1 below.

Table 1: Nostie Bank Seaweed Farm Coordinates

Latitude/ Longitude	OS Grid Ref
WGS84: 57:15.8350N, 5:34.1000W	NG 84918 24890
WGS84: 57:15.9000N, 5:34.1000W	NG 84924 25010
WGS84: 57:16.1600N, 5:33.0100W	NG 86044 25435
WGS84: 57:16.0950N, 5:33.0100W	NG 86038 25314

2.2 Name and details of Nearest Medical Centre and Hospital

- a) Broadford Medical Centre
High Road, Broadford, Isle of Skye IV499AA
Tel: 01471 822 460
- b) Dr Mackinnon Memorial Hospital
High Road, Broadford, Isle of Skye IV499AA

Tel: 01471 822 491

3 Personnel and Competence

3.1 North West Marine (NWM) Personnel

All works are to be undertaken by NWM, with no sub-contractors. The personnel engaged on these works are detailed in Table 2 below.

Table 2: NWM Personnel

Name	Position	Mandatory Qualifications	Other Qualifications
TBC	Skipper		
TBC	Deckhand		
TBC	First Aider		

Table Notes:

1. Details of the appointed person, lift supervisor etc are detailed in the Lift Plan RAMS.

4 Hazards, Risk Assessments and Method Statements

4.1 Risk Assessments & Method Statements

Risk Assessments and Method Statements (RAMS) associated for specific activities being undertaken by NWM for this project are being developed. They will take into account how the activity will be undertaken through detailing the method of works; then identifying the hazards presented, and the control measures that will be required to mitigate them and ensure the safety of personnel, along with any person within the vicinity or likely to be impacted by the activity. Personal protective equipment (PPE) will be detailed and provided, with personnel trained and competent to use it. The RAMS being developed and which will be appended to this document are:

Appended documents:

- RAMS 001 – Barge Operations
- RAMS 002 – Lift Plan and Crane Operations

4.2 General Project Hazards Identified

- Contact with sharp objects/ materials
- Coronavirus Disease (COVID-19)
- Electricity
- Exposure to Contact Hazards
- Lifting Operations
- Manual Handling
- Noise
- Site Transport and Deliveries

- Slips, Trips and Falls
- Sunburn and Weather
- Vibration
- Work at Height
- Working with Mobile Plant/ Traffic and Vehicle Movements
- Working with Power Tools
- Working in and around tidal water, on boats and exposed walkways in tidal water

4.3 Personal Protective Equipment (PPE)

Mandatory PPE as per site rules:

- High Viz clothing
- Hard Hat
- Safety Boots
- Gloves
- Eye Protection
- Flotation Suit
- Other PPE as per COSHH Assessment or specific RAMS

4.4 Additional Measures Due to Covid-19 Pandemic

- All personnel to travel to/from site in separate vehicles from persons they do not share accommodation with. On arriving at site, parking should be such that social distancing can be maintained when entering and exiting the vehicles.
- Handwashing facilities and sanitizer to be available when entering site.
- Social distancing shall be maintained on site. Close working is not possible.

5 Tools, Plant and Equipment

Tools, plant and equipment required to undertake the work include:

- Barge and (on-board) crane
- Site welfare cabins (on board facilities)
- Battery powered drills (if using 240V must be charged from mains supply in office)
- Small hand tools

6 Materials

Permanent materials and equipment to be installed as part of the works include:

- Embedment Anchors
- Mooring Blocks
- Heavy chain link

- Anchor rope and buoy
- Header rope
- Buoys
- Marker and navigation buoys

7 Method and Sequence of Work

7.1 Prestart

Before commencing work on site, site specific hazard identification and risk assessments will be undertaken; and this will be cascaded to all workforce through an initial site induction and daily toolbox talks. This includes employees, sub-contractors, client’s staff, and visitors.

7.2 Daily

- The site will be supervised by an appointed NWM personnel, detailed in Table 2, Section 3.1. They are deemed fully trained and competent to undertake this task.
- Prior to daily works commencing an appointed competent person will:
 - provide a daily briefing on RAMS relevant to the activities being undertaken to the workforce that day.
 - Ensure correct and appropriate PPE is provided, and that the personnel using it have the appropriate training and are competent.
 - Provide a site induction to any new personnel, making them aware of relevant identified risks specific to the site and their identified activities.
- The work area, plant and equipment checks will be undertaken.
- Weather will be checked, monitored and recorded daily (Fig.3). Met office forecast or similar to be used. Information to be recorded includes wind direction and strength; temperature; rainfall; and air pressure. **If any wave height over 100mm is recorded within the works area, all works will cease.**

Hour	Wind	Avg.	Gust	Temp.	Apprnt Temp.	Rain 1h	Cloud	Press.
17:00	WSW	7 mph	to 8 mph	18 °C	18 °C	0.2 mm	100 %	1002 mb
18:00	SW	5 mph	to 7 mph	17 °C	17 °C	0.2 mm	100 %	1002 mb
19:00	SSW	1 mph	to 5 mph	17 °C	17 °C	0.1 mm	100 %	1001 mb
20:00	E	2 mph	to 3 mph	16 °C	16 °C	0.1 mm	100 %	1001 mb
21:00	ESE	5 mph	to 6 mph	14 °C	14 °C	0.1 mm	100 %	1001 mb
22:00	SSE	2 mph	to 3 mph	13 °C	13 °C	0 mm	100 %	1000 mb
23:00	ESE	5 mph	to 5 mph	13 °C	13 °C	0 mm	100 %	1000 mb

Figure 3: Extracted example of weather data to be recorded daily.

7.3 Deployment of Equipment

The deployment of equipment will be undertaken in two phases: setting the moorings, and setting the long lines.

Nostie Bank, Appendix 3 – Method Statement – Longline Installation

a) Phase 1: Setting the Moorings (2 per long line):

- i. Set up the mooring chains on deck, all shackles tightened and cable tied.
- ii. Connect the crane to the main shackle on the anchor, using appropriately rated lifting chains/ hook/ sling.
- iii. Using the crane, lift the anchor into the water off the front or side of the vessel following the signallers instructions ensuring nothing enters the work area.
- iv. Attach the mooring chain onto the main winch and run the chain onto the winch drum until the chain becomes tensioned on the winch.
- v. Lower the crane till stops or lifting chains become relaxed and disconnect the anchor from the crane.
- vi. When the vessel is in the correct position lower the chain from the winch to the seabed until the tension is off the chain. All personnel to stand clear whilst the chain is being lowered.
- vii. Run all excess chain off the drum and secure the mooring chain a few metres from the end of the vessel secure point and disconnect the mooring chain from the winch.
- viii. Connect the marker buoy to the mooring chain. Using the crane, lift the marker buoy until the tension is on the mooring chain and disconnect the mooring chain from the vessel secure point, lower the marker buoy into the water and disconnect from the crane.
- ix. Repeat for the second anchor and buoy.
- x. Repeat steps ii to viii to place each of the mooring blocks for vertical anchors. For section ii, mooring lines to be made up to suit depth of mooring (depth at MHWS minus 1.5m). Mooring line to comprise 5m of 16mm longlink chain and remainder made up of 16mm Polysteel with hardeye at each end. Tighten shackle to mooring chain and cable tie.

b) Phase 2: Setting the Long Lines:

- i. 12mm long lines should be pre-cut and spliced to approximately 400m long and wound onto a winch drum.
- ii. Connect the end of the long line to the first main mooring buoy, then splice a dropper/ ballast into the long line at approximately 5m.
- iii. At 10m intervals, splice 1.5m lengths onto the long line, and take to surface, connecting to intermittent buoys.
- iv. At each vertical mass anchor position (50m), connect the long-line to the relevant buoy.
- v. Repeat b(iii) for the length of the long line; then splice a dropper, as per b(ii) and connect the end of the long line to the second main mooring buoy.
- vi. At each mooring position, remove floatation buoy from mooring line and connect to longline.

8 Consents and Permits

The consents and permits required to undertake the works, along with responsibilities are detailed below.

- Marine Licence
- Lease Agreements
- Ensure approvals in place from appropriate landowner for onshore equipment laydown area (if required) and for barge tie up.
- Lift plan for crane operations.

9 Emergency Arrangements

- In case of fire, raise the alarm and evacuate to muster point as per site induction and fire/emergency procedures.
- In case of accident or injury, seek assistance from site first aiders as per site induction and fire/emergency procedures.

10 Method Statement Responsibility

Produced By:		Signed:		Date:	
Checked By:		Signed:		Date:	

11 Record of Briefing

I confirm that I have been briefed on and understand the content of this Method Statement, the accompanying Risk Assessments, Plans and any associated COSHH Assessments.

Name	Signature	Date	Briefed By