



Environmental Monitoring Plan

West Gigha, Isle of Gigha

CAR/L/5004991

Date	31 st July 2023
Revision No.	A2



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Environmental Monitoring Plan

Permit Number: CAR/L/5004991

Marine Pen Fish Farm: West Gigha

Responsible Company: Bakkafrost Scotland

Version: A2

Date: 31/07/2023

1. Introduction

The purpose of this EMP is to monitor any potential seabed impacts from the marine fish farm in order to assess compliance with the seabed standards specified in schedule 4 of the permit.

This plan has been developed in accordance with SEPA guidance: "Version 1 May 2022 Seabed Environmental Standards - Demonstrating Compliance".

Two environmental monitoring survey designs are required:

1. Biological Sampling
2. Chemical Residues Sampling

2. Biological Monitoring

This sampling is designed to collect the required seabed data that will allow an assessment of compliance against schedule 4.1 of the permit. Any changes to these monitoring plans will be agreed with SEPA prior to any survey work commencing.

The default monitoring layout will be followed, with the direction of each transect as follows:

Table 1 West Gigha Biological Monitoring Transect Details

Transect	Bearing (°)	Distance (m)
1	211	200
2	31	350
3	301	200
4	123	250

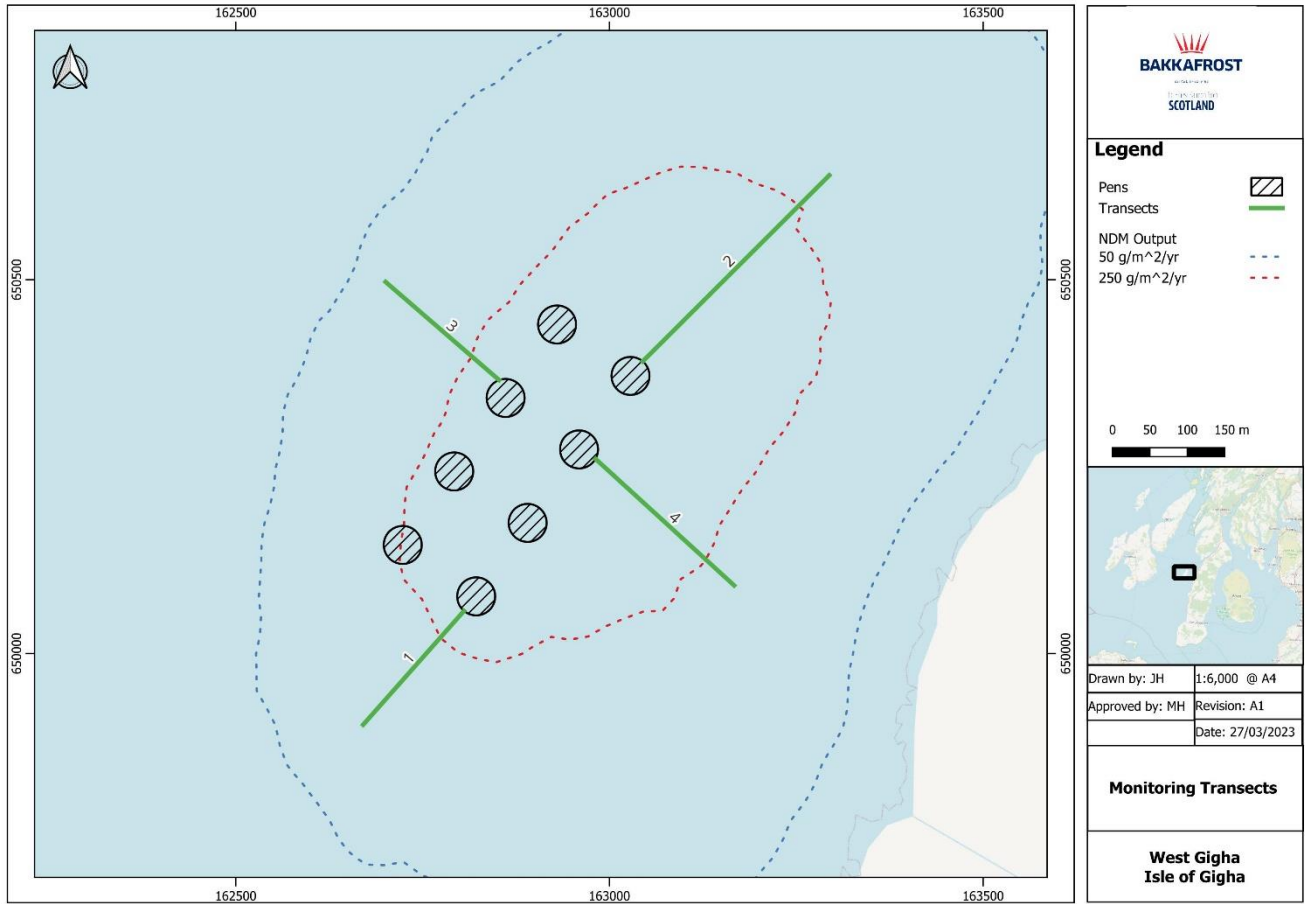


Figure 1 West Gigha Transect Map

At each sample station samples of sediment will be collected and analysed for:

- Benthic infauna
- Particle size analysis (PSA).

If a suitable seabed sample cannot be collected at one or more monitoring stations on a transect:

- a) the collection of a suitable sample (or samples) will be attempted at different locations on the transect concerned.
- b) if sufficient suitable samples cannot be collected on the transect after trying to sample at different locations, the collection of samples along a replacement transect will be attempted.

If it is necessary to attempt collection of samples on a replacement transect, the identification of that transect will consider:

- (i) Any relevant information about the seabed to help choose a replacement that maximises the likelihood of being able to collect sufficient samples.
- (ii) In the light of (i) above, moving the origin for the transect on the pen group.
- (iii) In the light of (i) above, orienting the transect on a different bearing within $\pm 5^\circ$ of the predominant direction of the bed current in the case of a replacement primary transect or, in the case of a replacement minor transect, within $\pm 20^\circ$ of orthogonal to the direction of the predominant bed current.
- (iv) A combination of (ii) and (iii) above.

3. Medicinal Residue Monitoring

This sampling is designed to collect the required seabed data that will allow an assessment of compliance against schedule 4.2 of the permit.

Samples will be collected along the transects detailed above and at the stations sampled for biological monitoring.

At each sample station samples of sediment will be collected and analysed for:

- Organic carbon
- Particle size analysis (PSA)
- Emamectin Benzoate

4. Survey Timing

Biological Monitoring- during each production cycle biological monitoring will be undertaken in a period which must:

- Begin no earlier than 10 days before the weight of the fish is reduced to 75% of final peak biomass and.
- Be completed no later than 7 days after the weight of fish is reduced to 75% of final peak biomass.

In accordance with schedule 5.2.

5. Data Reporting

Results from the analysis of all samples collected in accordance with this monitoring plan will be submitted to SEPA in the Environmental Monitoring Survey Results Template within the time period detailed in schedule 7.2.2 of the permit.

6. Performance Standards

Sampling and analyses, will be carried out in accordance with the following MACS documents:

- Performance Standard MACS-FFA-PSO1 - Version 2 July 2023
- Performance Standard MACS-FFA-PSO2 - Version 1 March 2022
- Performance Standard MACS-FFA-PSO3 - Version 1 March 2022