



Escapes Contingency Plan

North Gravir, East Lewis

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Glossary of Terms

DSFB	District Salmon Fisheries Board
MD	Marine Directorate
BFS	Bakkafrost Scotland

1.Introduction

Bakkafrost Scotland (BFS) is committed to stock containment and, as such, wish to take all precautionary steps to prevent escapes. All BFS containment measures, and notification procedures fully meet the standards outlined by the Code of Good Practice for Scottish Finfish Aquaculture and adhere to strict record keeping policy as required by 'The Fish Farming Businesses (Record Keeping) (Scotland) Order 2008'.

2.Site Equipment Summary

2.1 Pens

There will be 5 x 200 m circumference circular pens installed at the North Gravir site. The installations will be purpose built to withstand the environmental conditions predicted at the site. All pens are fitted with handrails and walkways to ensure staff safety.

Reference 1: Pen specification

Reference 2: Pen attestation

2.2 Moorings

The mooring equipment will be designed specifically for the environmental conditions predicted at site and installed by competent staff, taking into account the stress loading of the equipment, depth and tidal current data to ensure that all moorings supplied are tailored to meet the needs of individual sites. The grid mooring system to be installed will allow for an even spread of stresses and loads imposed by both astronomic and episodic tidal currents and will allow a degree of flex on each individual pen.

Reference 3: Mooring specification

Reference 4: Mooring attestation

2.3 Nets

All nets are designed to exceed the industry standards laid out in the Code of Good Practice for Scottish Finfish Aquaculture, as well as taking into account likely environmental conditions found on the site.

Reference 5: Net specification

Reference 6: Net attestation

Reference 7: Site plan and equipment inventory

2.4 Navigational Marking

All BFS sites have navigational markers installed as recommended by the Northern Lighthouse Board during consultation, and the site locations have been logged with the UK Hydrographic Office for inclusion in Admiralty chart updates. The North Gravir site will be marked in accordance with the conditions set out by the Northern Lighthouse Board as specified in the Marine Directorate Marine Licence.

Reference 8: Marine Directorate Marine Licence

3.Training and Competency

BFS has implemented an in-house training course on stock containment which is delivered through the BFS Marine Competency Framework for all marine site staff. BFS will ensure that all staff that are required to undertake equipment maintenance and inspection will be suitably trained and therefore deemed competent. Training records will be kept on site.

Reference 9: Summary details from Stock Containment training course

Reference 10: Site staff training records

4. Inspection and Maintenance Schedule

4.1 Pens

All surface equipment including pen structures will be visually inspected on a daily basis and logs will be held onsite. All pens will be installed by suitably qualified persons.

Reference 11: [Daily inspection log](#)

4.2 Mooring Systems

All surface mooring structures will be checked by site staff at the end of each production period. A record of inspection, resulting recommendations and equipment replacement will be held onsite.

The grid, base moorings and anchors will be checked at regular intervals by either remote operated vehicle (ROV) fitted with camera equipment or by contracted diving staff. This will be recorded, and documents will be held both on site and centrally.

Inspections of site mooring infrastructure will be carried out by specialist competent contractors. Inspections will be carried out against the requirements of the 'Marine Scotland: A Technical Standard for Scottish Finfish Aquaculture'¹. Once the specialist contractor has completed the inspection, any remedial work will be completed, and the contractor will issue a 'Declaration of Compliance'.

4.3 Net Installations

Net Replacement Strategy

All net traceability is held with the net supplier (WJ Knox) and includes the following details;

- Date of Manufacture
- Service ID
- Net Number
- Manufacture ID
- Location of receiving site
- Date of dispatch to site
- Anti-foulant type
- Net dimensions
- Break Tests
 - Above water line
 - Below water line
 - Base
 - Supplier

All nets are ID tagged and these numbers are recorded by the site manager, identifying which pen they are assigned to.

Once nets arrive at site they must be stored away from direct sunlight/out of the weather. They should remain covered until they are in use.

BFS is committed to replacing all nets within 6 years of purchase, with a max of 6 years 6 months for nets that are hung just prior to the 6-year cut off.

Should any break test show unsatisfactory results of <60 %, the net manufacturer is responsible for its repair. If beyond repair, then the decision to remove that net from service will be made by the net company along with the Production Manager/Area Manager from BFS.

Any changes/modifications to the nets must be agreed by both the net manufacturer and the Site/Area Managers from BFS.

¹ Marine Scotland: A Technical Standard for Scottish Finfish Aquaculture. [Online] Available at: <https://www.gov.scot/publications/technical-standard-scottish-finish-aquaculture/>

All nets are fitted with a seal 'blind' bottom and correctly tensioned, to deter seal attacks. Top nets (100 mm mesh size), net supports, and net tensioning are also used as part of the predator control strategy to reduce stock damage, and interactions with wildlife.

Surface and upper sub-surface netting is inspected every day by site staff as part of routine containment checks. Contracted dive staff carry out detailed containment checks at least monthly on all sub-surface netting, with dive reports produced, and stored onsite. Mobile cameras are also available for net inspections, if required.

4.4 Uplifts

All surface equipment will be visually inspected on a daily basis. All equipment will be installed by suitably qualified persons. Submerged equipment will be inspected at least monthly by divers.

4.5 Husbandry/Operations

There is a potential containment risk that can arise from daily husbandry and operational activities which BFS assesses and appropriately mitigates against.

[Reference 12: Risk assessment for containment on site](#)

5. Predator risk assessment

BFS recognises that the presence of predators in the vicinity of a fish farm may present a risk to containment of fish. A Predator Control Plan has been drafted for the North Gravir site and will be reviewed annually by the Site and Area Manager.

[Reference 13: Predator Control Plan](#)

[Reference 14: Fish Mortality Plan](#)

6. Actions to be taken in the event of an escape

6.1 Immediate actions

- 1 If an escape event is suspected on site, staff should initially conduct a visual assessment of equipment and surrounding area for escapee fish, and immediately make safe any obvious equipment failures.
- 2 Staff should then contact their Line Manager with any escape suspicions or escape confirmations, their Line Manager should keep a record of the potential escape incident and contact the Area Manager with the details.
- 3 The Regional/Area/Site Manager is responsible for reporting suspected escape incidence to the Biology Department with the details of the incident.
- 4 The Biology Director/Senior Biologist(s) will then call and report the incident to Marine Directorate, followed by an initial notification form submitted to the Scottish Government (if the Director/Biologist is unavailable the Production Controller should be contacted in their absence)
- 5 The local District Salmon Fisheries Board will be notified giving the details of the escape with the offer of assistance for any recapture attempt that they may wish to make. The local Fisheries Trust and Salmon Scotland should also be informed. Netting recapture is illegal without fishery board approval.

6.2 Post-notification actions

- 1 If an immediate repair can be made without endangering staff or increasing the risk of further loss of fish, this should be carried out and documented (log in site diary what was done, when and by who).
- 2 If no obvious cause of escape can be identified, all site operations should be stopped, such as grading, treating etc. Finding a breach in containment must take priority.
- 3 Feed response should be closely monitored following a suspected breach, as a drop in appetite could indicate a loss. Record all feed rates, as well as water quality, so that an assessment of feed response to fish numbers can be made.
- 4 If the fish are crowded and it suspected that the breach is within the crowd, the crowd should be slackened until the net is inspected to reduce the risk of further fish escaping the net. The net washing RONC or site feed cameras should be utilised to get an immediate view of any damage. If the breach is thought to be outside the crowd, nets should be dropped to reduce the risk of fish finding a hole.
- 5 Divers should be organised to inspect the site as a priority to check net, mooring and pen integrity. Any repairs made by the divers should be logged in the dive report. Where divers cannot attend immediately, if it is safe to do so, the pen net may be changed. This is only to occur if the net has been inspected and deemed whole by RONC/feed camera and no further fish are likely to escape.
- 6 Any observations of fish outside of the pen or in the vicinity of the site should be recorded.
- 7 A wellboat count of the site or affected pens should be conducted as soon as possible, taking fish welfare into consideration.
- 8 All actions taken must be documented and communicated to the Biology director/Senior Biologist/Biological Stakeholder Manager and Area Manager so that appropriated bodies can be informed.
- 9 Site staff should prepare for recovery attempts. In the event that the equipment is required to attempt recapture of escaped stock, check on location of nearest gill or fyke nets (to be used on agreement with wild fish interests).

Reference 15: Staff sign off sheet

Table 1: Escape Event Check List

#	Action	Who?	Timeframe	Action completed?
1	Visually assess equipment and surrounding area for escapee fish and make safe any obvious equipment failures.	Site Staff	Immediately without delay	
2	Document all observations	Site Staff		
3	Notify Site Manager/Area Manager	Site Staff		
4	Locate and prepare gillnets for potential recapture attempt (these will be located at Miavaig shorebase, Loch Roag)	Site Staff	As soon as stock containment priorities are complete	
5	Relay escape information to Senior Biologist	Site Manager/Area Manager	Immediately	
6	Verbal notification to FHI	Senior Biologist	Immediately	
7	Written notification to FHI	Senior Biologist	Within 24 hours	
8	Notify all other stakeholders e.g. Local trust, Salmon Scotland	Senior Biologist/Biological Stakeholder Manager	Immediately (Within 48 hours)	
9	Establish suitability for recapture attempt with local fisheries interests	Biological Stakeholder Manager	Immediately (Within 48 hours)	
10	Follow 'Actions for Recapture' if deemed appropriate.	All involved – as delegated	As dictated by licensing and consultation	
11	Written Final Notification	Senior Biologist	Within 28 days of event	

6.3 Recapture of escapee fish

Whether or not a recapture attempt is deemed appropriate will be subject to discussions between BFS, the local wild fisheries interests and Marine Scotland. **Deployment of nets without the necessary licences and permissions is illegal.**

- Permission to deploy gillnets must be sought from the Local District Salmon Fishery Board.
- NatureScot must be consulted on any nature conservation designations as part of the recapture method licensing process i.e. any Special Protected Areas (SPA) designated for ornithological features which may be present in the local area.
- Gillnets will be on standby following identification of the escape.
- The gill nets are of a mesh size sufficient to capture BFS farmed smolt, and therefore also the larger farmed fish.
- It has been identified that the most notable/sensitive wild fisheries receptor in the vicinity of North Gravir is the Laxay River, Loch Erisort. In the event of an escape, BFS will liaise with all local wild fisheries interests to identify appropriate recapture methods.
- The location of recapture attempt will depend on whether sightings of escaped stock have been observed locally. E.g. if escapees have been sighted/reported in a local river, efforts may target the river mouth/estuary. Alternatively, if the escaped fish have remained in the vicinity of the site, the recapture attempt may need to be deployed around the site.
- Nets will be deployed and manned during daylight hours and will cease when no farmed stock has been caught for 48 hours, or when otherwise directed by the Local DSFB/Marine Directorate. If any wild salmonids are caught, fishing effort will immediately cease.

Reference 13: Marine Directorate Guidance 'What to do in the event of an escape from a fish farm'

7.Related Sites

- Gravir (FS 0242);

7.1 Local Contact Numbers.

MD in Aberdeen:

Duty/On Call Inspector 0131 244 3498

Initial and Final Escapes Notification to:
Western Isles DSFB
Outer Hebrides Fisheries Trust
Salmon Scotland:

ms.fishhealth@gov.scot
clerk@widsfb.org; 07990 553 309
biologist@ohft.org.uk; 01851 703 434
01738 537 000

Reference Documents

Reference 1: Pen specification

Reference 2: Pen attestation

Reference 3: Mooring specification

Reference 4: Mooring attestation

Reference 5: Net specification

Reference 6: Net attestation

Reference 7: Site plan and equipment inventory

Reference 8: Marine Directorate Marine Licence

Reference 9: Summary details from Stock Containment training course

Reference 10: Site staff training records

Reference 11: Daily inspection log

Reference 12: Risk assessment for containment on site

Reference 13: Predator Control Plan

Reference 14: Fish Mortality Plan

Reference 15: Staff sign off sheet

Reference 16: Marine Directorate Guidance 'What to do in the event of an escape from a fish farm'